European Commission

Horizon 2020
European Union funding
for Research & Innovation

CRISS

Acquisition, assessment and certification of students' digital competence in primary and secondary schools

BOOKLET

Project Info

Acronym	CRISS
Project title	Acquisition, assessment and certification of students' digital competence in primary and secondary schools
Project website	www.crissh2020.eu
By	Fondazione Villa Montesca
Updated and adapted by	UOC
Date	October 1, 2020

This work outlines the conceptual development of the CRISS digital competence operational concept and the assessment model leading ultimately to its certification. These developments were led by a team from Universitat Oberta de Catalunya in strong collaboration with the project partners. The booklet also presents eleven "competence assessment scenarios" supporting digital competence development. They were created by the project partners together with enthusiastic teachers among seven european countries and the support of educational technology experts and learning designers.

+ This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 732489.

Summary

FOREWORD

Surprisingly enough, a key lesson learnt from this project did not concern technology itself, it was an insight into human nature: “Our children are smarter than we think” - an observation of a teacher, who participated with her class in piloting CRISS. The lesson learnt is that we, adults, should not assess children’s abilities against our own competences or our perception of their limitations. Millennials believe that after the appearance of the internet, the education systems have globally become outdated. Information is a commodity and the school systems were built upon memorisation of information. In an era when babies learn how to swipe before they go to school and when Artificial Intelligence, X-Reality, 3D printing along with so many other cutting-edge technologies have migrated from the realm of academic publication into our living rooms, schools cannot stay behind. Digital competences such as managing one’s digital identity, protecting one’s health and well-being while using technology or even being a responsible digital citizen are only a few of the essential assets a child should be equipped with while at school in order to navigate modern life.

The good news is that education stakeholders and policy makers around the world are aware of this fact. That is why the European Commission has initiated the creation of the European Digital Competence Framework (DigComp), with the help of the Joint Research Centre (JRC). As its creators mention, being a framework, “DigComp is descriptive rather than prescriptive” and should its users wish to further elaborate on its content, they should do so.

And this was what we did in CRISS. We created an operational framework catered to the needs of students and teachers in primary and secondary education to practice digital competence acquisition, assessment and certification in the classroom. Further on, teachers and education professionals from 9 countries have worked hard to create exercises, which translate theory into practice, the so-called Competence Assessment Scenarios. During the piloting phase of the CRISS project, these Scenarios have been tested in the classrooms of 535 schools by more than 27,000 students all over Europe.

Both the Framework and the Competence Assessment Scenarios created in the context of CRISS project, are included in this booklet and its multilingual versions[1] for free of charge use, reuse and modification (providing the original source is acknowledged) by any individual or organisation. We believe that this booklet is a valuable tool in the hands of anyone working to promote digital skills in formal education and training, as well as non-formal or informal learning initiatives.

We hope that our work will inspire new and further developments for and within the classrooms of today and tomorrow.

On behalf of the CRISS consortium,

Anna Palaiologk

CRISS Project Coordinator

EXUS Software Ltd

[1] The electronic version of this booklet as well as the multilingual versions are available on the CRISS project website at https://www.crissh2020.eu/

1. INTRODUCTION

Lourdes Guàrdia, Marcelo Maina, Montse Guitert, Teresa Romeu, Pablo Baztán, Federica Mancini - (Universitat Oberta de Catalunya)

The European Commission works with EU Member States in favour of the adoption of competency education (CBE). The Council of the European Union adopted the Recommendation of Key Competencies for Lifelong Learning in May 2018 identifying 8 Key Competences that "include knowledge, skills, and attitudes needed by all for personal fulfilment and development, employability, social inclusion and active citizenship": Communicating in a mother tongue, Communicating in a foreign language, Mathematical, scientific and technological competence, Digital competence, Learning to learn, Social and civic competences, Sense of initiative and entrepreneurship and, Cultural awareness and expression

The EU Joint Research Centre has been working since 2010 on the development of a Digital Competence framework, being the last version released in 2017: "DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use". As the project states, this framework serves as a common reference that should inspire more focused applications of the DC.

The CRISS project provides a joint solution for the development, assessment and certification of the Digital Competence in primary and secondary schools in Europe.

To this end, CRISS proposes a framework composed of an operational concept and an assessment model applicable to different contexts and curriculums.

CRISS offers in this booklet a set of customizable Competence Assessment Scenarios (see next) that provide different opportunities for the development and assessment of the DC in primary and secondary schools.

2. CRISS FRAMEWORK

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2.1. OPERATIONAL CONCEPT

CRISS adopts the definition from A. Ferrari, "Digital Competence in Practice: An Analysis of Frameworks"[2] for the European Commission, 2012.

"**DIGITAL COMPETENCE** is the set of **knowledge, skills, attitudes** (thus including abilities, strategies, values and awareness) that are **required when using ICT and digital media**

- to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge
- effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively
- for work, leisure, participation, learning, socializing, consuming, and empowerment"

The CRISS DC Operational Concept is the result of an analysis and mapping of seven European digital competence frameworks and schemes already in use with DigComp.

The **Operational Concept** expands the DC into 5 areas and 12 sub-competences along with performance criteria and indicators that support assessment. It has been developed on the basis of the DigComp framework for citizens and seven other DC European schemes applied in the school context (see appendix 1).

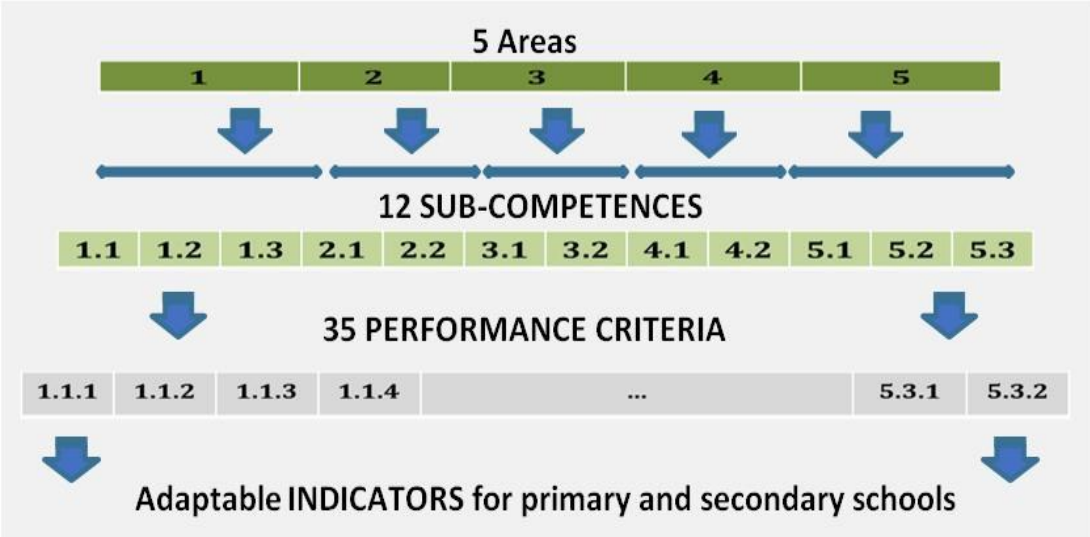
[2] Ferrari, A. (2012). Digital Competence in Practice: An Analysis of Frameworks (Report EUR 25351). Institute for Prospective Technological Studies, European Commission..

DC Operational Concept

An **Area** identifies "a general dimension of the DC.

Each Area comprises a set of **Sub-competences** that in turn are associated with a series of **Performance Criteria** that specify what the student should be able to demonstrate.

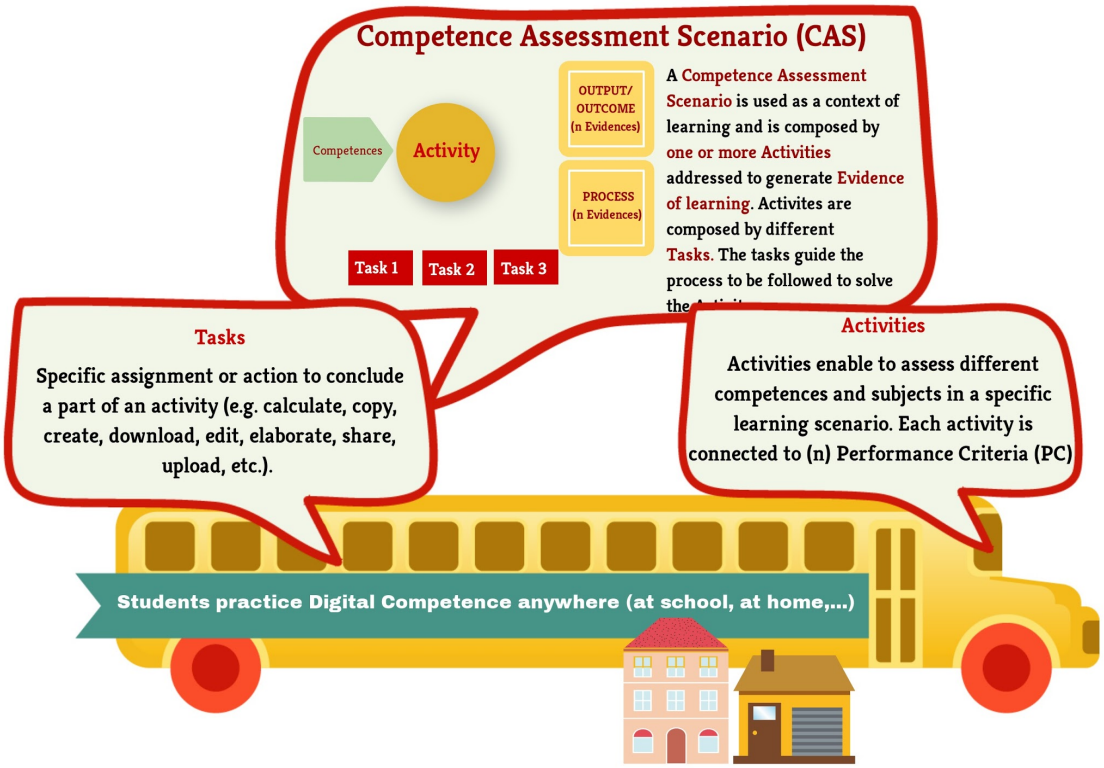
Finally, **Indicators** are observable and measurable characteristics of the Performance Criteria and anchored the assessment into concrete and specific learning activities.



DC Operational Concept structure

2.2. ASSESSMENT MODEL

The Competence **Assessment Model** is based on the pedagogy of integration (Roegiers & de Ketele)[3], where DC is embedded into subjects or disciplines. It proposes the development of **Competence Assessment Scenarios (CAS)** where learners actively engage in solving problems, developing projects or searching for solutions in meaningful situations.



CAS components

This approach confronts the student with meaningful situations and demands the mobilization of a set of competences in order to solve the CAS and achieve the expected learning outcomes. In this sense, integration pedagogy involves developing

[3] Roegiers, X. & de Ketele, J.-M. (2000). Une pédagogie de l'intégration: compétences et intégration des acquis dans l'enseignement. Bruxelles: De Boeck Université.

integration activities that require a higher level of sophistication or complexity than typical standard tests on digital skills or knowledge. At the same time, integration activities are those that allow different competences and subjects to be assessed in the same learning scenario. Students' productions represent evidence that is assessed using a variety of methods and instruments and that account for their DC development.

Interdisciplinary CAS example applied to secondary education

CRISS assessment is based on assessing competences through different CAS overtime. These CAS can be implemented at different moments and their duration may vary.

The CAS can be integrated into the school curriculum and be adapted according to each context of implementation.

3. COMPETENCE ASSESSMENT SCENARIOS

We present hereafter a set of Competence Assessment Scenarios focused on Digital Competence development and assessment. They represent a variety of pedagogies, situations, levels of complexity, duration, assessment methods and instruments. They also point to different sub-comptences and areas of the DC Operational Concept.

These CAS are customizable and are open for free adaptation and reuse. Please consider giving recognition.

We hope they will be of inspiration and will support your teaching practice and enrich your learners experience in developing the digital competence.

3.1. CAS: "Improve employee competence - company"

3.1.1. SCENARIO INTRODUCTION

Authors: Canan Blake (UCL), Federica Mancini (UOC)

In this scenario members of groups of students play the role of employees in a big company that provides customer services.

The new board wants to improve the value chain of the company and decides to create a database of all the problems detected by its employees to identify standardized solutions and design an ad-hoc training for the staff. For this reason, employees are also asked to report each technical problem on their devices and how they managed to fix it.

The company is also keen that its employees appreciate the need to be aware of their own digital competence with the aim to provide a full comprehensive training.

This scenario is designed for students of 14-16 years old, it consists of 3 activities with 7 tasks and has a duration of 4 hours.

The learning methodology (or instructional approach) that will be used in this scenario is project- based learning.

Students will develop the work mostly in collaborative activities simulating the job carried out in a software company. As such some activities will be carried out individually (as would be in a company) but students will then get together to report part. Some of the learning evidence though will be for individual students.

The curricular / disciplinary competences involved in the scenario are:

ICT/Computer science.

The Digital Competence is developed through developing reports for technical and software problems when using a computer and through reflective questionnaires as case studies of appreciating the need for self-development of competencies.

The assessment of "Improve employee competence" is carried out through formative and summative assessment. Formative assessment will help students to get feedback while they are carrying out tasks, working on their designs and will help them to address parts of the tasks they need to improve. Summative assessment will help accrediting digital competences.

Formative evaluation will be carried out during the activity and summative evaluation will be at the end of the activity.

3.1.2. SCENARIO ACTIVITIES AND TASKS

Activity 0	**CAS Introduction**
Description	In this activity the teacher is going to introduce the topic of the Learning Scenario. Before starting the activity and the tasks the teacher will provide each student with the necessary materials.
Task 0.1	**Explanation about the Scenario**
Description	In this scenario the teacher divides the students in groups and introduces the role play: they are employees of a big company and need to report technical problems on their devices and how they managed to fix them. The company also needs their feedback on their own digital competence to provide a full comprehensive training.
Resources	
Task workload	10 minutes
Activity 1	**Troubleshooting Report**
Description	Employees experience some common problems with their devices about: • sound • printer They need to solve the problems and report them. After that a workflow on how to solve a specific technical problem will be designed by each team.
Total Activity Workload	1h,50
Task 1.1	**Troubleshooting sound problems**
Description	The objective in this task is to prepare a troubleshooting report [E1.1] for sound problems that have been experienced by employees. The troubleshooting report will be shared with the class in 'CRISS groups' tool. In order to design the troubleshooting report you will be asked to work with computers with real sound problems. Go to your given computer and check if you can hear the sound from a video (select one that you have seen before, so that you know what sound you are supposed to hear). If there is no sound, start a troubleshooting plan to solve the problem. Most of the time, troubleshooting is a process of trial and error. You may need to use several different approaches before you can find a solution to technical problems in computers. Using the process of elimination may help you find out what is wrong with the sound in your computer.
Resources	*Computers, speakers, connecting cables (and if available Bluetooth versions), and headphones.*
Task workload	*40 minutes*
Task 1.2	**To print or not to print**
Description	Following on with your job you also deal with printer problems. You will be presented with a faulty printer/computer to make this task easier for you.

	Remember that you may need to use several different approaches before you can find a solution to technical problems in computers. Using the process of elimination may help you find out what is wrong. This means making a list of things that may be the cause of the problem and then test them one by one to eliminate them. Run an internet search and prepare a plan to find the problem with the printer. You can work with your colleagues. When you find the source of the problem, write the troubleshooting report [E1.2]. Share your plan and the commentary with your colleagues and the manager and by uploading it into the company repository.
Resources	*Printers and computers* *Access to websites*
Task Workload	*40 minutes*
Task 1.3	**Workflow on how to solve technical problems**
Description	After reporting the last problems, the company asks each team to choose one of the problems that has been solved by its members and to design a workflow [E1.3] that illustrates how to solve it. Any relevant information can be added to the diagram to illustrate the process to other users in a simple and easy way. The images created will be shared on the company internal discussion forum. Run an internet search and identify the best tool to represent graphically the workflow used to solve a specific problem. Compare different options and features. Publish the workflow in the internal discussion forum (Criss groups can be used for this activity) explaining to other employees why the tools you chose are the best for this purpose and what can be done with it.
Resources	
Task Workload	*30 minutes*
Activity 2	**Checking your digital competences**
Description	In this activity, we continue the project with groups of students playing the part of employees of a big company. In order to design an appropriate and comprehensive training for the staff, the company decides to gather additional information on its employees' digital competences. For this reason employees are required to take an annual self-assessment using the CRISS Framework.
Total Activity Workload	*2 hours*
Task 2.1	**Digital Competence Check**
Description	The company requires the employees to take an annual self-assessment of their digital competence. To do it employees need to look at their knowledge in protecting data and digital systems and create digital content since the company is particularly keen on these topics.

	Consider these topics and discuss its requirements. Then answer the **Digital Competence Questionnaire** [E2.1] in your team and consider your own competence. Then see if you want to suggest improvements. In your discussion consider ways to overcome lack of knowledge in these performance criteria. The next step is suggesting activities to become more knowledgeable in Digital Content Creation. Draft your suggestions in a digital document [E2.2] and be sure to make at least one suggestion for all areas you marked **in column three** as an example of your own digital competence training needs and present to your manager.
Resources	*Access to Internet and the websites* *Additionally an online version of the questionnaire could be set up in survey form by the teacher if preferred*
Task Workload	*45 minutes*
Task 2.2	**Copyright and Piracy**
Description	Related to the previous task on digital competence areas, the company also needs to make sure that employees have a good understanding of concepts of copyright and piracy. It's not always easy to understand when something is protected by copyright and how copyright-protected items can be used in a legal way. In this regard, your company is interested also in testing employees' knowledge before deciding whether to provide training for this topic as well. First you need to test your knowledge on this topic through the questionnaire designed by your company. You can answer the test [E2.3] to establish what can be considered breaches of copyright. You can also run a small search session to look up terms such as copyright, copyright infringement and creative commons licence. After submitting your answers, you can go to www.webwewant.eu to find out the answers. To prepare for this task run a small search session to look up terms such as copyright, copyright infringement and creative commons licence and other areas that are important when considering copyright issues on the Internet. After finalizing the quiz, prepare a document [E2.4] with your comments about the area of information you newly acquired during this job and the information you think you still miss. This will help your company to set up a perfect and personalized training for you.
Resources	*Computers* *Access to websites*
Task Workload	*45 minutes*
Task 2.3	**Keep you up to date with your browser**
	After all these activities you need to configure your browser to easily access the most relevant links you need in order to keep you up to date on digital competence. You need also to speed up the search of learning activities to

	train your competence in your mother tongue and ensure to automatically gather relevant sources to support your training in installing targeted browser extensions and bookmarks. Remember also to identify an easy way to access the internal discussion forum of your company (e.g. CRISS group) to search for the tips of your colleagues on how to solve specific technical problems. The teacher will check the configuration of your browser and the strategy adopted to optimize the search of relevant information and will fill a checklist [E2.5].
Resources	*Computers* *Access to websites*
Task Workload	*30 minutes*

3.1.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - Troubleshooting Report

Task 1.1 - Troubleshooting sound problems	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
5.2.1.1 Awareness that problems usually have a specific origin.	The student is not aware of the origin of the most common and recurrent technical problems that can arise using technology.	The student is aware of the origin of a problem with difficulties and supported by the teacher.	The student is aware of the origin of a problem by checking autonomously the information needed.	The student is aware of the origin of a problem without any external support.
5.2.1.2 Identification of the technical problems on their own or asking for help.	The student is not able to identify the technical problem despite the support provided by the teacher.	The student is able to identify the technical problem with many difficulties and is fully supported by the teacher.	The student is able to identify the technical problem asking for some external support.	The student is able to identify the technical problem autonomously without any external support.
5.2.2.1 Search for possible causes of a problem once it's detected.	The student is not able to search for the possible cause of the problem.	The student searches for possible causes of the problem but the strategies used are not relevant.	The student searches for possible causes of the problem using reasonable and consistent strategies.	The student searches for possible causes of the problem using effective and innovative strategies.
5.2.2.3 Adoption of a positive	The student adopts a negative or	The student adopts a passive attitude	The student adopts a positive attitude	The student adopts a positive attitude

attitude to solve technical problems.	conflicting attitude in solving the technical problem.	and does not seem interested in solving the technical problem.	quietly and is willing to solve the technical problem.	and considers the technical problems as a challenge.

Task 1.2 - To print or not to print	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
5.2.1.1 Awareness that problems usually have a specific origin.	The student is not aware of the origin of the most common and recurrent technical problems that can arise using technology.	The student is aware of the origin of a problem with difficulties and supported by the teacher.	The student is aware of the origin of a problem by checking autonomously the information needed.	The student is aware of the origin of a problem without any external support.
5.2.1.2 Identification of the technical problems on their own or asking for help.	The student is not able to identify the technical problem despite the support provided by the teacher.	The student is able to identify the technical problem with many difficulties and is fully supported by the teacher.	The student is able to identify the technical problem asking for some external support.	The student is able to identify the technical problem autonomously without any external support.

Task 1.3 - Workflow on how to solve technical problems	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
5.1.1.1 Awareness of the existence of the variety of technological tools and approaches and of their continuous development.	The student is not aware of the existence of the variety of technological tools and approaches. The student has no idea of their continuous development.	The student is aware of some of of the variety of technological tools and approaches but not of its continuous development	The student is aware of the existence of the variety of technological tools and approaches. The student has some idea of their continuous development.	The student is aware of the existence of the variety of technological tools and approaches and their continuous development
5.1.1.3 Knowledge of the appropriate tool for a specific purpose and how to use it.	The student does not know the existence of different tools for a specific purpose nor how to use it.	The student knows the existence of some different tools for a specific purpose but he/she does not know how to use it.	The student knows the existence of some different tools for a specific purpose and he/she does not know how to use it.	The student knows the existence of lots of different tools for a specific purpose and he/se knows how to use it according to his/her needs.

ACTIVITY 2 - Checking your digital competence

Task 2.1 - Digital Competence Check	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
5.1.2.1 Awareness of the acquired knowledge and one's technological abilities.	The student is not aware of his/her own acquired knowledge and technological abilities.	The student is able to reflect and point out his/her own acquired knowledge and technological abilities only with a strong external support.	The student needs some help to reflect and to point out his/her own acquired knowledge and technological abilities.	The student is able to reflect and point out his/her own acquired knowledge and technological abilities autonomously.
5.1.2.2 Detection of one's own knowledge gaps when using digital technology.	The student is not aware of one's own knowledge gaps.	The student needs help to reflect and point out one's own knowledge gaps.	The student is able to reflect and point out the gaps with the teacher's advice.	The student is able to reflect and point out the gaps to be improved.

Task 2.2 - Copyright and Piracy	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
5.1.2.1 Awareness of the acquired knowledge and one's technological abilities.	The student is not aware of his/her own acquired knowledge and technological abilities.	The student is able to reflect and point out his/her own acquired knowledge and technological abilities only with a strong external support.	The student needs some help to reflect and to point out his/her own acquired knowledge and technological abilities.	The student is able to reflect and point out his/her own acquired knowledge and technological abilities autonomously.
5.1.2.2 Detection of one's own knowledge gaps when using digital technology.	The student is not aware of one's own knowledge gaps.	The student needs help to reflect and point out one's own knowledge gaps.	The student is able to reflect and point out the gaps with the teacher's advice.	The student is able to reflect and point out the gaps to be improved.

Task 2.3 - Keep you up to date your browser	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
5.3.1.2 Selection of some options to customise	The student is not able to select any option to customize the personal digital	The student is able to select just some basic options to customize the	The student is able to select some of the options to customize the	The student is able to use all the relevant options to customize the

the personal digital environment.	environment despite the support of the teacher.	personal digital environment with the support of the teacher.	personal digital environment without any support.	personal digital environment autonomously.
5.3.1.3 Updating new options to improve the personal environment when necessary.	The student is not aware of the need for new options and does not update them to improve the personal learning environment.	The student is aware of the need of some new options but is not able to update them properly to improve the personal learning environment.	The student is aware of the need of some new options and is able to update most of them to improve the personal learning environment.	The student is aware of the need of the most relevant new options and is able to update them all appropriately to improve the personal learning environment.

3.2. CAS: “Was Oliver Twist a son of the Industrial Revolution?”

3.2.1. SCENARIO INTRODUCTION

Author: Elena Osés Urteaga (GDN)

"Was Oliver Twist a son of the Industrial Revolution?" is about a project **whose main objective** is the creation of a digital timeline providing answers to the question that gives its name to the project, in which students must include some information about the main changes and inventions of this historical period. Evidence from the project will be uploaded to the CRISS platform library by the teacher or the students depending on the type of resource or product and then, these resources will be used by each student to create his/her “Portabily” project (multimedia presentation).

This project **is designed for students aged** 14-16 years old.

“Was Oliver Twist a son of the Industrial Revolution?" consists of 5 **activities and has a duration of** 12 hours and 30 minutes.

The learning methodology (or instructional approach) that will be used for this project is project-based learning because it is proved to be an effective way to learn and develop deeper learning competencies. Projects engage students and provide relevance for learning. Students make learning memorable because it is meaningful and interesting. In a project, students learn how to take initiative and responsibility, they work collaboratively, communicate their ideas, build their confidence and manage themselves better. In order to work on this project, collaborative and cooperative groups will be used. In collaborative learning students work together to search for a solution, to understand and/or to create a product of their learning. In cooperative learning, students depend on each other, at all levels, to be successful. Success depends upon everybody working towards the same objective. However,

some individual work will be carried out in order to provide some time for individual thinking and creation.

The curricular/disciplinary competences involved in the scenario are communicative competence in the mother language, communicative competence in a foreign language (English), digital competence and learning to learn competence. The work done in each of the areas involved is important to provide a multidisciplinary answer to the question.

Digital Competence is developed through the design of a multimedia timeline in which students will include videos, images and text that they have created themselves using the information that they found on the internet, in text books, novels, reference books, etc., whilst always taking care to respect the authors' rights. Students will also play group games to check their existing knowledge of the subject and will share their ideas and outcomes using digital walls created by the teacher. Students will create a "Portabily" evidence in the CRISS platform in which they will gather all the work done in the Learning Scenario.

The subjects involved are History and English as a Foreign Language **and the main themes are** Industrial Revolution in England and "Oliver Twist", (see in more detail in Table 2 - Themes). English and History teachers will work together in this project, but not always at the same time. The activities are in a sequence that must be followed in order for them to be coherent. Activities 1, 2, 4 and 5 are part of History. Activity 3 is part of English. The sequence is the following:

- Activity 1 (History): 1 hour
- Activity 2 (History): 1 hour 30 minutes
- Activity 3 (English): 4 hours
- Activity 4 (History): 3 hours
- Activity 5 (History): 3 hours

The project is worked on mainly in History but English is a good supporting subject in order to make the most of the topic and to have a multidisciplinary view. After the first session (60 minutes), which introduces the project, both the History and the English teachers can start working on this Scenario, at the same time. However, the English part is much shorter and they will finish it within a week, whereas in History they will be working on it for 2-3 weeks, depending on whether students will do all the work in the classroom or they will finish some of the tasks at home.

The assessment of "Was Oliver Twist a son of the Industrial Revolution?" will be carried out through formative and summative assessment by the teacher, self-evaluation by each group of students and by individual self-assessment. The teacher's formative assessment will be used as an ongoing process of gathering information on the whole learning process by using evaluation rubrics for each of the tasks. This assessment will be used to keep a record of students' work, attitudes and development of competences, and also to readjust the planning of sessions, activities, tasks, groups, etc. At the end of the project, the teacher will do a summative assessment of the 'Portabily' evidence which should include all the tasks and work in which each student was involved and each student will have to hand in an essay in which he/she will have to give an answer to the project question and show what he/she has learnt about this historical period of time.

The assessment instruments developed are rubrics for the teachers, students and group activities and a digital self-evaluation tool, a gamification technique (Kahoot). An initial evaluation will be made before starting the project to evaluate previous knowledge. The teacher will make a note of the starting point of the class in order to readjust future sessions, if needed. During the project, teachers and students will use rubrics to evaluate their learning process and there will be a final assessment of the final product - "Portabily" evidence - done by the teacher. The teacher will also assess an essay written by each student in which they reflect about what he/she has learnt in the project. This essay will also be uploaded on the CRISS platform.

Each activity and task will have its own assessment rubrics.

3.2.2. SCENARIO ACTIVITIES AND TASKS

Activity 1	**Presentation of the project and previous ideas - brainstorming**
Description	In this activity we are going to introduce the topic of the Learning Scenario that is the Industrial Revolution in the UK and in Europe, and we are going to do an initial evaluation of our students' prior knowledge. Before starting the activity and the tasks the teacher will provide each student with a copy of the evaluation rubric with the information of what is expected for them to do in this activity and the minimum requirements to pass it. This will be done **at the beginning of each activity**. The rubrics will always be available in the project folder that the teacher will have previously created in the CRISS platform. At the end of each task students will evaluate their performance and record it in their learning diaries. Students will also be told that at the end of the project each of them will have to submit an essay giving answer to the project's question and with his/her reflection on the learning process. The teacher will guide students through CRISS platform so they get used to it and can find the resources for the project easily.
Total Activity Workload	**1 hour** (task 1.1 - 1 hour)
Task 1.1	**OLIVER WHO?**
Description	***A) DESCRIPTION:*** The teacher will introduce the question: "Was Oliver Twist a son of the Industrial Revolution?" and will ask the students to access two digital walls [E1.1] [2.2.2.3] created by the teacher to answer these two questions: ● Who was Oliver Twist? ● What do you know about the Industrial Revolution? Students will be asked to think before answering and to provide as many ideas as they can [2.2.2.1] in order to get a first picture of their prior knowledge. When students post a new entry on the digital wall, they must write his/her name on the Title so the teacher knows who has contributed to the brainstorm. Students can find the digital walls in the CRISS platform Library in a folder named after the project. **<u>Teaching notes:</u>** ***B) ASSESSMENT:*** ***Evidence:***

	[E1.1] Digital Walls (frequency and wall's use) ***Assessment instrument:*** Rubric 1 - Teacher assessment and Self-assessment ***Indicators:*** 2.2.2 [2.2.2.1-2.2.2.3]
Resources	Internet access. CRISS platform - Library - "Was Oliver Twist…?" folder. Digital devices with access to the internet (mobile phones, tablets, chromebooks, PCs…) and a projector/monitor to share the outcomes. Padlet links to be remade by each teacher who uses the Learning Scenario: ● Who was Oliver Twist? ● What do you know about the Industrial Revolution? Documents: ● Rubrics for the teacher and for students to be found in the project's folder within the CRISS platform.
Task workload	1 hour
Activity 2	**Collaborative groups - Learning diaries**
Description	***A) DESCRIPTION:*** The groups will get together and each member chooses their role within the group. The first activity will be sending a message talking about the members of the group and the project using the CRISS Messenger tool. At the end of each day of work the group will write a message to the teacher/s explaining the work done during the session. Students will also create a **Google Drive Folder** in which they will collaborate to do some of the projects' work. The teacher will create the **collaborative groups.**
Total Activity Workload	**1 hour 30 minutes** (task 2.1 - 1 hour) (task 2.2 - 30 minutes)
Task 2.1	**CREATING WORKING GROUPS**
Description	***A) DESCRIPTION:*** The project is going to be carried out using two different types of work dynamics; some work will be individual and some work will be done in collaborative groups. At the beginning of this class the teacher will provide students with the rubric to evaluate their work as a group. The rubric can be found in the project's folder in the CRISS platform. Students will know what is expected from them and the minimum work that will be accepted. The teacher will also have an evaluation rubric to assess the group and the individual work. The teacher will make groups and use the CRISS Messenger tool as a group learning diary to reflect about their learning process. Ideally each group would have 4 members with different roles that they will be changing during the project.

	• **COORDINATOR**: Makes sure that every voice is heard. Focuses work around the learning task. • **SECRETARY:** Compiles group members' ideas and communicates with the teacher. • **SUPERVISOR**: Encourages the group to stay on task. Announces when time is halfway through and when time is nearly up. • **ANIMATOR:** Helps the group discover and use all of its potential for creative and constructive teamwork. The students that take each role can change depending on the task so everybody takes every role at least once. Group roles are not static; students may adopt different roles at different times during the project's life-cycle. Any changes must be communicated to the teacher by the secretary. The teacher would use the CRISS Messenger tool also as a learning diary for each group. The students and the teacher/s will communicate using this tool in order to keep a record of the work done during the project and of their reflections. After each task the Animator of the group will write a message about the work done during each activity. The whole group will collaborate to create a text that will summarize the work done after each working session at the school or at home, if the group has some work to do after school. These messages can be used by the teacher to keep a record of the work done by each group. In the messages, the group would reflect on the work done and it would be a group evaluation tool together with the rubric for group work. Once the groups are created by the teacher, the members of each group will get together and write their first message [E2.1] [2.1.1.1] in which they will talk about the new project, the members of the group and what they are expecting to learn [2.1.1.2]. This task will be done after each day/session working in the project in order to have a diary of the learning process [2.2.1.1] [2.2.1.2]. The teacher will provide 10 minutes at the end of each class for students to summarize the work done during the lesson and write a message. **<u>Teaching notes:</u>** ***B) ASSESSMENT:*** ***Evidence:*** [E2.1] first message ***Assessment instrument:*** Rubric 2 group assessment - teacher assessment ***Indicators:*** 2.1.1 [2.1.1.1-2.1.1.2] 2.2.1 [2.2.1.1-2.2.1.2]
Resources	Internet access. CRISS Messenger tool. Digital devices with access to the internet (mobile phones, tablets, chromebooks, PCs…), at least one device per group.

	Projector or monitor to share the outcomes with the rest of the class.
Task Workload	1 hour
Task 2.2	**GOOGLE DRIVE FOLDER**
Description	***A) DESCRIPTION:*** The teacher will talk about the importance of keeping a group common folder with all the work of the project. At this point it is important to talk about the different ways of collaborating in one Google Drive Folder or shared document, presentation… All together we will look at the different options and we will decide which one is the best option for our work to be safe and private if this is what we want. Each group of students will create a **Google Drive Folder** [E2.2] [3.2.1.1] for them to collaborate in the project. All the members of the group will be able to edit the common documents and upload what they find interesting for the rest of the group [3.2.1.3]. Both teachers (History's and English') should be included in all the groups' Google Drive folders in order to keep a record of the work done by the group and by each member. Students are guided by the teacher to share the Google Drive folder and documents correctly [1.1.2.1] [1.1.2.2]. **Teaching notes:** ***B) ASSESSMENT:*** ***Evidence:*** [E2.2] Google Drive Folder ***Assessment instrument:*** Rubric 2 - group assessment - teacher assessment ***Indicators:*** 1.1.2 [1.1.2.1-1.1.2.2] 3.2.1 [3.2.1.1-3.2.1.3]
Resources	Internet access. Digital devices with access to the internet (mobile phones, tablets, chromebooks, PCs…), at least one device per group. Documents: ● Google Drive Folder created by each group ● Rubric 2
Task Workload	30 min
Activity 3	**Oliver Twist, who was that boy?**
Description	In this activity students are going to find out who Oliver Twist was and when he was born. In the first task students will have to answer some questions before reading a text from an adapted version of Oliver Twist. Then they will put the findings in commons before reading the text in detail, working on the vocabulary and answering some after reading questions. Students will have to find the information on the Internet and share them first with the rest of the group by using a **collaborative Google Doc** and then, with the rest of the class. To finish the activity there is a game with which students can check their answers to the questions.
Total Activity Workload	**4 hours** (task 3.1 - 45min) (task 3.2 - 45 min) (task 3.3 - 30 min)

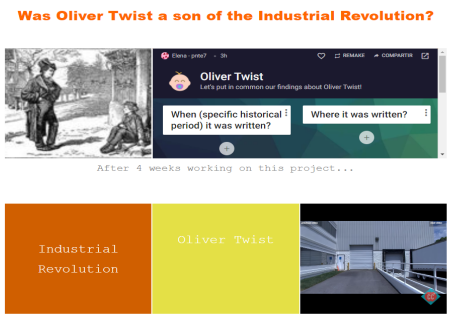
	(task 3.4 - 2 hours)
TASK 3.1	**BEFORE YOU READ ABOUT OLIVER**
Description	***A) DESCRIPTION:*** Each group of students has a text from an adapted edition for English as a foreign language students of the novel **"Oliver Twist " by** Charles Dickens with a set of questions in the Library of the CRISS platform (see document attached). Students will have to find the answers to the questions individually and then put them in common with the rest of members of the groups through a Google Doc [E3.1] created for this task. [2.1.3.1] [2.1.3.3] **Teaching notes:** ***B) ASSESSMENT:*** ***Evidence:*** [E3.1] Google Doc ***Assessment instrument:*** Rubric 3 - teacher - group - self assessment ***Indicators:*** 2.1.3 [2.1.3.1-2.1.3.3]
Resources	Internet access. Digital devices with access to the internet (mobile phones, tablets, chromebooks, PCs…), one device per student. Documents: ● Oliver Twist adapted text with questions: CAS Oliver Twist, who was that boy? Act 3 Task 3.1 ● Google Doc created by each group ● Rubric 3
Task Workload	45 minutes
Task 3.2	**LET'S SHARE OUR FINDINGS!**
Description	***A) DESCRIPTION:*** The groups put in common the answers to the questions (using the Google Doc created in the task 3.1) before reading the text [2.2.2.2]. Students will have access to the digital wall (such as **Padlet**) through the CRISS platform in which each group will publish their findings [2.2.2.3]. The students with the teacher will look at the answers in the Padlet [E3.2] to find elements in common and the answers will be discussed. **Teaching notes:** ***B) ASSESSMENT:*** ***Evidence:*** [E3.2] Answers ***Assessment instrument:*** Rubric 3 - teacher - group - self assessment ***Indicators:*** 2.2.2 [2.2.2.2-2.2.2.3]
Resources	Internet access. Digital devices with access to the internet (mobile phones, tablets, chromebooks, PCs…), one device per student. Documents: ● Rubric 3

	• Link to the digital wall (such as Padlet)
Task Workload	45 minutes
Task 3.3	**WORK ON THE TEXT**
Description	***A) DESCRIPTION:*** Once the students have a general knowledge of the background of the text that they are going to read we provide a text for each student. The students read the text individually the first time. Then they will have to look up the unknown words and these vocabulary words in an English digital dictionary, such as: https://dictionary.cambridge.org/dictionary/english/ https://en.oxforddictionaries.com/ Vocabulary words: ➢ Workhouse ➢ Orphan ➢ Hunger ➢ Cruelty For the second reading we could use a **recording of the text** in which the intonation would help us get into the mood of the story. The podcast will be available for the students through the CRISS platform. Podcast of the text The podcast will be available from CRISS platform Library. Using a digital board (such as: https://webwhiteboard.com) each student shares the definition of the vocabulary words [E3.3] [2.2.3.1]. The group will discuss through the digital board about each definition and come up with the right definition for the context [2.2.3.3]. A different whiteboard will be used for each word. The URL of the collaborative whiteboards will be accessible from the Library of CRISS platform. **Teaching notes:** ***B) ASSESSMENT:*** ***Evidence:*** [E3.3] Behaviour ***Assessment instrument:*** Rubric 3 ***Indicators:*** 2.2.3 [2.2.3.1-2.2.3.3]
Resources	Internet access. Digital devices with access to the internet (mobile phones, tablets, chromebooks, PCs…), one device per student. Projector or digital board. Documents:

	• Podcast of the text
Task Workload	30 minutes
Task 3.4	**JIGSAW TASK ABOUT OLIVER AND KAHOOT!**
Description	***A) DESCRIPTION:*** Students will answer these questions as a group about Oliver Twist using the **Jigsaw technique**. Each member of the group is in charge of one of the questions. Once they all have their answer [E3.4] [3.1.3.1] [3.1.3.2], they will have to tell and explain the outcomes to the rest of the group so everybody has all the answers required. The first student or couple of students who finish their answers can try to find out the answer to question 5. QUESTIONS 1. What type of people lived in a workhouse in the 18th century? 2. Who was Oliver Twist's mum? 3. Why was the doctor surprised when Oliver cried? 4. Why did the doctor make the comment about the woman's wedding ring? 5. What is going to be the future of Oliver? Once all the members of the group have put in common the answer to his/her questions, they will write them in a new Google Doc with the title of the task [E3.4]. Also, students will include the references of the resources where they have found the answers [3.1.3.1] [3.1.3.2]. Once all the groups have finished the Google Doc, the teacher will provide the access code to a Kahoot (evaluation/gamification tool) to check the answers to the questions. Students will answer to the Kahoot in groups (at the same time) and they can use the document that they created with the answers to the questions. **Teaching notes:** ***B) ASSESSMENT:*** ***Evidence:*** [E3.4] Google Doc with the answers and the references ***Assessment instrument:*** Rubric 3 - teacher - group - self assessment ***Indicators:*** 3.1.3 [3.1.3.1-3.1.3.2]
Resources	Internet access. Digital devices with access to the internet (mobile phones, tablets, chromebooks, PCs…), one device per student. Projector or monitor. Documents: • Rubric 3 • Google Doc created by each group • Kahoot link: https://play.kahoot.it/#/k/543d4ca5-f051-4a3f-9e60-a37e89ae4363

Task Workload	2 hours
Activity 4	**What happened in the Industrial Revolution?**
Description	In groups students will have to find the answers to a series of questions and show them in a timeline.
Total Activity Workload	**3 hours** (task 4.1 - 1 hours) (task 4.2 - 2 hours)
Task 4.1	**JIGSAW ACTIVITY ABOUT THE INDUSTRIAL REVOLUTION**
Description	***A) DESCRIPTION:*** In that task, students will share a Google Doc in which all the members of the group will have access and permission to edit. They will call this document: "What happened in the Industrial Revolution?" [E4.1] and they will keep it in their group's Google Drive folder. In groups students have to find out the answers to these questions to check if Oliver Twist belonged to this part of the history. To do that task, first of all students will plan an information search to find the answers to the following questions (timing, tools, goals, etc.). Students will write down that planning into the document "What happened in the Industrial Revolution?" [3.1.1.1] [3.1.1.2]. Students would use the Jigsaw technique to find the answers to the questions [3.1.2.1] [3.1.2.2]. The first or first students in finishing will be in charge of the fifth question. 1. From what year to what year did the industrial revolution take place? 2. What changes did take place in agriculture and livestock? 3. What changes did take place in the industry? 4. What changes did take place in transportation? 5. Explain the process of the demographic transition. Students will share a Google Doc in which all the members of the group will have access and permission to edit. They will call this document: "What happened in the Industrial Revolution?" and they will keep it in their group's Google Drive folder. In this document students will share their findings, links… **Teaching notes:** ***B) ASSESSMENT:*** ***Evidence:*** [E4.1] "What happened in the Industrial Revolution?" (Google Doc) ***Assessment instrument:*** Rubric 4 ***Indicators:*** 3.1.1 [3.1.1.1-3.1.1.2] 3.1.2 [3.1.2.1-3.1.2.2]
Resources	Internet access. Digital devices with access to the internet (mobile phones, tablets, chromebooks, PCs…), one device per student. Documents: ● Rubric 4
Task Workload	1 hour

Task 4.2	CREATE A GROUP TIMELINE
Description	***A) DESCRIPTION:*** With the information from the Google Doc and from the CRISS platform Resource Library, students will create in groups a **timeline** [E4.2A] [4.1.1.2] [4.1.1.4] to represent the most important changes and inventions during the years of the Industrial Revolution and show the answers to the previous questions [4.1.4.1]. Before starting with the online design of the timeline we will work with our groups to design a first draft in paper in order to make sure that we include the aspects we want. We will also discuss the design, images to be used, texts, etc. [4.1.3.2] [4.1.4.2] [4.1.5.1]. Students should include that draft somehow in their e-portfolio (e.g.: scan, take photo…) [E4.2B]. In order to create the digital timeline we will use Timeline JS as it is integrated in the CRISS platform. At this point it is important to bear in mind the ethical and legal aspects of the creative work. The teacher will talk to the class about using images, videos, documents, etc. for which students have permission to use. In order to find this type of resource we will use the creative commons search engine and students will always look for resources with a licence that will allow us to reuse the content. Students will practice looking for some pictures, documents, videos… as a whole class to get used to the search engine: https://search.creativecommons.org/ It is important that the group use images, videos and resources with the correct creative commons licences to create their timeline [1.2.3.2]. Once the timelines are finished [4.1.3.3] [4.1.5.2] it is time to provide a licence to our work depending on the use that we want people to give to it. We will look at the different types of creative commons licences [1.2.3.1] and each group will design its own that will be included in the timeline. To do this work we will use the following information from Creative Commons: https://creativecommons.org/share-your-work/ **Teaching notes:** ***B) ASSESSMENT:*** ***Evidence:*** [E4.2A] timeline [E4.2B] timeline's draft (digital version) ***Assessment instrument:*** Rubric 4 ***Indicators:*** 1.2.3 [1.2.3.1-1.2.3.2] 4.1.1 [4.1.1.2-4.1.1.4] 4.1.3 [4.1.3.2-4.1.3.3] 4.1.4 [4.1.4.1-4.1.4.2] 4.1.5 [4.1.5.1-4.1.5.2]
Resources	Paper, colour pens. Internet access. Digital devices with access to the internet (tablets, chromebooks, PCs…), one device per group. Useful links:

	• Time-line: Timeline JS • Creative Commons search engine: https://search.creativecommons.org/ • Creative Commons licences: https://creativecommons.org/share-your-work/ Documents: • Rubric 4
Task workload	2 hours
Activity 5	**Portabily evidence in the CRISS platform**
Description	Each student will create his/her "Portability" evidence in which it is shown the learning process and the work done throughout the project.
Total Activity Workload	**3 hours** (task 5.1 - 1 hour and 30 minutes) (task 5.2 - 1 hour and 30 minutes)
Task 5.1	**PORTABILY EVIDENCE**
Description	***A) DESCRIPTION:*** Once the previous 4 activities and their corresponding tasks have been completed successfully, students can work individually in the creation of their "Portabily" [E5.1] evidence for their CRISS portfolio. Each student must create a "Portabily" evidence in which they include all the digital works in which they have been involved [3.2.2.1]. They give a title to their evidence and choose a layout [3.2.2.3] [4.2.1.2]. Some elements must be present in this multimedia work [4.1.3.3] [4.1.3.5]: • Digital walls in which the student has taken part. • Collaborative Timeline. • Answers to the projects' questions. • Oliver Twist text with answers to the before and after reading questions. [4.2.1.4] Example: 

	Teaching notes: ***B) ASSESSMENT:*** ***Evidence:*** [E5.1] "Portably" ***Assessment instrument:*** Rubric ***Indicators:*** 3.2.2 [3.2.2.1-3.2.2.3] 4.1.3 [4.1.3.3-4.1.3.5] 4.2.1 [4.2.1.2-4.2.1.4]
Resources	Internet and CRISS platform access. Digital devices with access to the internet (mobile phones, tablets, chromebooks, PCs…) and a projector/monitor to share the outcomes. Documents: ● CAS Portably evidence in the CRISS platform ● Rubric 5
Task Workload	1 hour and 30 minutes
Task 5.2	**WRITE AN ESSAY**
Description	***A) DESCRIPTION:*** To finish the Learning Scenario students will have to write an essay [E5.2] in a Google Docs that they will share with the teacher in which they reflect about what they have learnt about the Industrial Revolution in a Google Doc shared with the teacher. Students can use the Portably project as a guide not to forget any of the work done during the project. The History teacher will evaluate the essay according to a rubric that he/she will have provided to the students beforehand. The teacher will state the length of the essay according to their students competences. [4.1.1.2] [4.1.1.4] **Teaching notes:** The History teacher will evaluate the essay according to a rubric that he/she will have provided to the students beforehand. The teacher will state **the length** of the essay according to their students competences. ***B) ASSESSMENT:*** ***Evidence:*** [E5.2] Essay in Google Doc ***Assessment instrument:*** Rubric ***Indicators:*** 4.1.1 [4.1.1.2-4.1.1.4]
Resources	Portably evidence as a guide of the work done. Google Doc. Essay rubric.
Task Workload	1 hour and 30 minutes

3.2.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - Presentation of the project and previous ideas - brainstorming

Task 1.1 - Oliver who?	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.2.2.1 Frequency of interaction in virtual environment(s).	The student does not take part in the task or if it does his/her answers are not appropriate.	The student interacts at least one time.	The student interacts more than once. The interactions are appropriate.	The student interacts more than 2 times. The interactions are valuable and reflected.
2.2.2.3 Use of different online collaborative tools.	No use of online collaborative tools and lack of interest in doing so.	Able to use the online collaborative tools with guidance.	Demonstrates reasonable confidence in the use of online collaborative tools. Some help is needed in order to post the answers.	Confident in the use of online collaborative tools and makes really good independent use of them.

ACTIVITY 2 - Collaborative groups - Learning diaries

Task 2.1 Creating Working groups	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.1.1.1 Use of the appropriate language for specific audience (e.g. age, professional role, cultural sensibilities, relationship, etc.).	Language is not appropriate for the topic or audience at all. There is not a proper summary of the work done by the group.	Language is quite informal and not always appropriate for the topic and audience. The summary of the work done is quite vague.	Language is usually appropriate for the topic and audience. The summary of the work done is adequate.	Language is appropriate for the topic and audience. Language enhances the effectiveness of a presentation, it is vivid, imaginative, and expressive. The summary of the work done is very accurate and well redacted.
2.1.1.2 Adequate behaviour when using specific digital tools and	The student has not worked appropriately or seriously.	The task has been done quite well but the teacher may have given guidance and corrections.	The task has been usually done seriously and correctly. The teacher may have given some	The task has been done seriously and the use of the tool has been always correct.

platforms (e.g. blog, chat, networks, e-mail, etc.).			guidance.	
2.2.1.1 Coherence and viability of the plan.	The student is not able to work and he/she does not follow the teacher's advice.	The student works well. However, the teacher helps him/her with the organization of his/her work to be successful.	The student is well organized and he/she has only minor problems. The teacher has to provide some guidance to help him/her.	The student is very well organized and he/she does the task with no problems. He/she contributes to the group's work according to his/her role.
2.2.1.2 Adequacy of the digital tools for the planning and the development of the work.	The messages do not summarize the work done by the group and/or are not appropriate.	The messages are not always appropriate and some recordings are done quickly and without thinking as a group.	The messages are quite appropriate but more details could be provided to enrich them and describe better the work done by the group.	The messages are always appropriate and the content is a really good summary of the work done by each member of the group.

Task 2.2 Google Drive Folder	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.1.2.1 Quality of the verification of the privacy policies.	The work is not well protected, anyone can access it and edit it which could be very risky.	Students need the teacher's guidance to share and protect their work correctly. There are some sharing mistakes.	The privacy policies are usually correct and the work is usually shared correctly. Minor sharing mistakes could be found.	All the privacy policies are correct and the work is always shared appropriately. There has been a previous reflection about how we want to share our work.
1.1.2.2 Strategy used for guarding against identity theft and scams that try to access their private information online.	The student does not know strategies for guarding against identity theft and scams. Students create, use and share documents without reflecting about privacy. Student is not careful with his/her credentials and he/she usually does not log off from the online places.	The student knows some strategies for guarding against identity theft and scams. However, there are some privacy issues that should be reconsidered. He/she does not take care to log off from online places.	The student knows strategies for guarding against identity theft and scams and usually uses them. Sometimes, he/she does not take care to log off from online places.	The student knows good strategies for guarding against identity theft and scams and always uses them. Always, he/she takes care to log off from online places.

3.2.1.1 Use of a coherent, clear and efficient system to manage, storage or retrieval information.	No organisational skills. Products are not organised and are usually delivered late.	Basic organisational skills. Products need to be better organised and delivered on time.	Good organisational skills. Products are usually well organised. Well productive in accomplishing assignments.	Really good organisational skills. Products are really well organised. Highly productive in accomplishing assignments.
3.2.1.3 Coherence of the own strategy with the one adopted by the collaborative environment.	There is no strategy adopted.	The strategy adopted is not coherent.	The strategy adopted is coherent for the group.	The strategy adopted is coherent and clear for everybody (group and teachers).

ACTIVITY 3 - Oliver Twist, who was that boy?

Task 3.1 Before you read about Oliver	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
2.1.3.1. Interaction and exchange of online information with other students through one or more communication systems.	No participation at all and lack of involvement. The student does not take part in the activity and the interaction and the information exchanged is not enough.	Enough participation, needs more involvement. The information is quite basic and there are some problems with the use of communication systems.	Good, quality of participation. The use of communication systems is good. Students need some guidance provided by the teacher.	Very high quality and appropriate participation. The use of communication systems is excellent and autonomous.
2.1.3.3 Adequacy and coherence of the communication and of shared information.	The information provided does not cover all points.	The information is ok, but more research is needed.	The information provided covers all points but there are not too many details or extra information.	The information provided by the student is accurate and extensive.

Task 3.2 Let's share our findings!	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
2.2.2.2. Quality of interventions: argumentation of the own interventions	The interventions are neither argued nor coherent. No new content provided.	To some extent the interventions are argued. No new content provided.	The interventions are argued, but there is not always new content added.	The interventions are argued, coherent and new content added.

and consideration of the interventions of the group.				
2.2.2.3 Use of different online collaborative tools.	No use of online collaborative tools and lack of interest in doing so.	Able to use the online collaborative tools with guidance.	Demonstrates reasonable confidence in the use of online collaborative tools. Some help is needed in order to post the answers.	Confident in the use of online collaborative tools and makes really good independent use of them.

Task 3.3 Work on the text	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
2.2.3.1. Respect and tolerance to classmates and their opinions.	The student rarely shows respect to the interventions of others. He/she is not tolerant with different opinions.	The student sometimes does not show respect to the interventions of others and there are discussions.	The students always show respect to the interventions of others.	The student evaluates positive and negative aspects and offers help to solve negative issues.
2.2.3.3 Ability to negotiate (resolve conflicts, identify one's own and others' positions, exchange concessions and reach satisfactory agreements, etc.)	Even with the teacher's involvement, students find it very difficult to reach an agreement and they rarely find a common one.	Students discuss a lot and find it difficult to reach an agreement without the teacher's involvement.	Students usually reach an agreement but the teacher may have to take part in the negotiation.	Students are always ready to listen to other opinions, evaluate them and always find a common agreement.

Task 3.4 Jigsaw activity about Oliver and Kahoot!	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
3.1.3.1. Quality, reliability, comprehension and adequacy of the information founded.	Do not find the information, or it is not adequate or has no quality.	Do not find most of the information. The information found is adequate or has quality.	Find almost all the required information. The information found is adequate and has quality.	Find all the required information. The information found is relevant, adequate and has quality.

3.1.3.2. Use of different sources searching the same information.	The student does not use any source on the Internet.	The student uses 1 source on the Internet to search for the same information.	The student uses 2 and 3 sources on the Internet to search for the same information.	The student uses more than 3 sources on the Internet to search for the same information.

ACTIVITY 4 - What happened in the Industrial Revolution?

Task 4.1 Jigsaw Activity about the Industrial Revolution	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
3.1.1.1 Adequacy and coherence of planning information search to the needs.	Students do not plan information search to match the needs.	Student's planning of information search is poor regarding their needs.	Student's planning of information search is adequate for their needs.	Student's planning information search is excellent for the needs.
3.1.1.2 Viability of the planning in terms of timing, content, tasks, tools, goals, etc.	The planning and its viability is poor (it does not contain any of the following points: timing, content, tasks, tools, goals, etc.).	The planning or its viability is poor (it contains some of the following points: timing, content, tasks, tools, goals, etc.).	The planning and its viability is adequate (it contains some of the following points: timing, content, tasks, tools, goals, etc.).	The planning and its viability is excellent (it contains all of the following points: timing, content, tasks, tools, goals, etc.).
3.1.2.1 Quality and suitability of concepts or keywords' list for the information search.	The student does not use appropriate keywords.	The student uses less appropriate keywords than inappropriate.	The student uses more appropriate keywords than inappropriate.	All keywords are appropriate.
3.1.2.2 Adequacy of different information search tools.	Search is done without any reflection and this is shown in the information presented that is quite vague and not enough.	One search tool is used and some research is done. However, not all information is appropriate or relevant. There is no reference of the tool used.	Only one search tool is used but the information found is relevant. There is no reference of the tool used.	There are a variety of the search tools used that help to compare the information. There is reference to the tools used.

Task 4.2 Create a group timeline	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**

1.2.3.1 Knowledge about the legal and ethical dimensions respecting creative work.	The student does not know the different Creative Commons licences and does not include any in their work.	The students have difficulties in differentiating the different types of licences and the teacher has to guide them to create an appropriate one for their work.	The students know the different Creative Commons licences but he/she needs the teacher's guidance to create a licence for their work.	The students know the different Creative Commons license and apply this knowledge to his/her work perfectly well.
1.2.3.2 Ethical and responsible behaviour respecting the creators and users of creative work.	The student does not care about creative commons licences and uses the resources he/she finds without checking the licence that he/she has.	The student usually uses resources for which he/she has a licence. However, some of the resources have no creative commons licence and/or there are no references to them.	The student is very careful and respectful and only uses the resources for which he/she has a licence. However, he/she forgets to cite the resources that he/she uses.	The student is very careful and respectful and only uses the resources for which he/she has a licence. He/she references the resources correctly.
4.1.1.2 Content quality (argumentation, syntax, cohesion, clarity, etc.).	There is a lot of information missing and the quality of the content is very poor. There are many syntax and spelling mistakes.	The information is in the content but it is not clearly presented and some information is missing or hidden. There are some syntax and spelling mistakes.	All the information is in the content but sometimes it is a bit confusing to follow. More clarity is required. There are some minor syntax or spelling mistakes.	The cohesion is excellent. All the information is in the content, in context and in chronological order. There are not any syntax or spelling mistakes.
4.1.1.4 Relevance of the information according to the objectives.	Information is irrelevant and does not answer the questions of the project. There is no connection among the resources.	Some information is not relevant or coherent. More information is required to be able to understand the content.	The information is related and coherent to the project but a more thoughtful selection criteria are needed. Some content is not well connected or explained.	The information is carefully selected and it is relevant to the project. There has been some thinking before and it is reflected in the work.
4.1.3.2 Design of a draft to produce digital content including format, content, objectives and structure.	The draft is very poor and its viability too. The draft has no coherence according to the aim of the project and this is reflected in the digital content.	The draft and its viability is adequate and it is coherent according to the aim of the project. However, new content is added to the digital content without being in the draft.	The draft and its viability is adequate and it is coherent according to the aim of the project. However, some aspects could be more carefully selected and presented. There is some improvisation in the digital	The draft and its viability is excellent and it is coherent according to the aim of the project. There is a very good organization and it is reflected in the digital content.

			content.	
4.1.3.3 Content quality of the final product.	The quality of the final product is quite poor.	The quality of the final product is acceptable, but a little more work could be done.	The quality of the final product is quite good.	The quality of the final product is very high quality. The products of all the tasks are present.
4.1.4.1 Elaboration of a presentation using the appropriate options of the tool selected.	The tool is used at a very basic level. The different options have not been considered. The presentation is poor and basic.	The tool is used at a basic level, many options are not used. The information could be better presented if all the options were considered.	The tool is used well but not at its full potential, some options are not used or taken into consideration. The presentation could be improved and made more attractive.	There is previous work to learn to use the tool and make the most of it. The presentation is well selected in order to make the most of the tool. The majority of the tool options are used well.
4.1.4.2 Adequacy of the content taking into account the goals of the project.	The content is not relevant nor adequate.	Some of the content is not appropriate or does not answer the project questions. More research work should be done.	The content is appropriate but it could be analysed in more detail. Some important aspects/answers are missing or are not completed fully.	The content is carefully analysed, studied and selected. All the questions are answered with detail.
4.1.5.1 Integration of the elements in different formats into a digital document (text, images, video, etc.) using the appropriate options of the tool selected.	The student does not use elements in different formats.	The student does not use many formats and they are not integrated at all.	The student uses some formats and the majority of the parts are well integrated, but there are some minor errors.	The student uses a huge range of formats and all parts of the presentation are well integrated.
4.1.5.2 Format quality of the digital content (elements in the document, organization, etc.).	There has not been any reflection in the way the content was organized. The presentation is quite poor.	The presentation should be revised to integrate all the content better. It needs a bit more reflection.	The content has been presented well. The presentation is well organized but there is some room for improvement.	The organization of the content has been carefully thought. The presentation is excellent, all the elements required are present and all the information is relevant and well organized.

ACTIVITY 5 - Portabily evidence in the CRISS platform

Task 5.1 Portable evidence	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
3.2.2.1 Flexibility and integration of one's own system with the people who share learning (teachers, students, experts, etc.).	There is no one's own system.	The personal system adopted is not flexible and does not allow for integration.	The personal system adopted is flexible but does not allow for integration.	The personal system has high flexibility and allows for completed integration.
3.2.2.3 Efficient and coherent management of the resources.	The resources are hardly used, many resources are missing or not visible.	The resources are managed at a basic level. There is a need for more efficient and coherent use, many important tasks are not visible and accessory aspects have an important place.	The resources are usually well managed, but the student can make more out of them, some resources have not the presence required for their importance.	All resources are well managed and the student makes the most out of them.
4.1.3.3 Content quality of the final product.	The quality of the final product is quite poor.	The quality of the final product is acceptable, but a little more work could be done.	The quality of the final product is quite good.	The quality of the final product is very high quality. The products of all the tasks are present.
4.1.3.5 Relevance of the product according to the objectives.	The product is not appropriate for the purpose of the project. Many final task products are missing.	The product could be more adequate for the purpose of the project. Not all the products required are present. It could be improved.	The product is adequate for the purpose of the project. Some minor details need to be corrected.	The product is very adequate for the purpose of the project. It is a perfect compilation of the work done.
4.2.1.2 Originality of the aesthetic.	The student does not take into account a chromatic range, images in the same style, typographies...	The student rarely takes into account the elements related to aesthetic and originality (a chromatic range, images in the same way, typographies...).	The student takes into account almost all of the elements related to aesthetic and originality (a chromatic range, images in the same way, typographies...).	The student takes into account a chromatic range, images in the same way, typographies...

4.2.1.4 Adequacy of the content taking into account the goals of the project.	The presentation shows less than 50% of the tasks of the project.	The presentation shows 50% of the tasks of the project.	The presentation shows more than 50% of the tasks of the project and less than 75%.	The presentation shows more than 75% of the tasks of the project.

Task 5.2 Portable evidence	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
4.1.1.2 Content quality (argumentation, syntax, cohesion, clarity, etc.).	There is a lot of information missing and the quality of the content is very poor. There are many syntax and spelling mistakes.	The information is in the content but it is not clearly presented and some information is missing or hidden. There are some syntax and spelling mistakes.	All the information is in the content but sometimes it is a bit confusing to follow. More clarity is required. There are some minor syntax or spelling mistakes.	The cohesion is excellent. All the information is in the content, in context and in chronological order. There are not any syntax or spelling mistakes.
4.1.1.4 Relevance of the information according to the objectives.	Information is irrelevant and does not answer the questions of the project. There is no connection among the resources.	Some information is not relevant or coherent. More information is required to be able to understand the content.	The information is related and coherent to the project but a more thoughtful selection criteria are needed. Some content is not well connected or explained.	The information is carefully selected and it is relevant to the project. There has been some thinking before and it is reflected in the work.

3.3. CAS: How could you promote your county or region?

3.3.1. SCENARIO INTRODUCTION

Author: Pau Córdoba (ESP)

"How could you promote your county or region?" is a project **whose main goal** is to design an original route; that means that the students can't use a route that is already available at any repository, in their county or region. This project **is aimed at students aged** 15-16**. "How could you promote your county or region?" consists of 6 activities (plus the introduction Activity) and lasts 20 hours.**

The learning methodology used in this project is Project Based Learning. Project Based Learning is a teaching method in which students gain knowledge and skills by working for an extended period of time investigating and responding to an authentic, engaging and complex question, problem, or challenge. **Depending on the task, activities and tasks will be carried out by learners in a collaborative or an individual way. The curricular competencies developed in the scenario are** communication, cultural and artistic, learning to learn, digital and information fluency, mathematical, personal autonomy and initiative, knowledge and interaction with the physical world and social and civic.

Digital competence is developed through group monitoring and management, problem solving in different knowledge areas, presentation of results and development of a final product.

The related subject is Social Science although other subjects such as Language, Arts and Crafts may also be used in order to achieve the objectives of the different activities. Social Science is a means for experimentation and discovery and for the competence related to knowledge and the interaction with the physical world has to

be taken into account to develop their contents. **The Social Science syllabus is available here**: http://xtec.gencat.cat/web/.content/alfresco/d/d/workspace/SpacesStore/0023/fe124c3b-2632-44ff-ac26-dfe3f8c14b45/curriculum_eso.pdf

The assessment of "How could you promote your county or region?" is carried out through formative evaluation by the teachers and the students can also be part of this process by evaluating themselves and their peers. **The developed instruments for the assessment are** rubrics. The assessment is planned to take place after each task, but it can take place after each activity.

3.3.2. SCENARIO ACTIVITIES AND TASKS

Activity 0	**Introduction**
Description	In this activity, the teacher is going to introduce the CAS. The teacher will explain the key/main/principal information of the Scenario: what the students have been asked to do (the creation of an original touristic route for their country or region) and how they will work.
Total Activity Workload	10 min
Task 0.1	**Explanation about the Scenario**
Description	The teacher will explain to the students the main / principal information of the Scenario: The goal of this scenario is the creation of an original touristic route for the students' county or region. The students will have to investigate and learn the particularities of their region related to demography, climate, health, culture and transports and what infrastructures could make their region a good place for visitors. The Scenario has 7 activities (the introduction activity plus 6 other activities), and its duration is 20 hours (20 hourly sessions, flexible depending on the schedule). During these activities, the students should not only research, list or find the best places to visit in their region but through the different activities they will learn, what characterises their region and what their strengths and weaknesses are in relation to climate, transportation, demography, festivities and traditions. The relevant subject is Social Science although other subjects such as Language, Arts and Crafts may also be used in order to achieve the objectives of the different activities. The Social Science is a means for the experimentation and the discovery and the competence related to knowledge and the interaction with the physical world has to be taken into account to develop their contents.

	Students will work in a collaborative way in groups and each student will be assigned to a role and its responsibilities. The assessment of "How could you promote your county or region?" is carried out through formative evaluation by the teachers while students can be part of this process as well by evaluating themselves and their peers. The developed instruments for assessment are rubrics. Assessment is planned after each activity and in cases, the assessment is planned after a task. ***Note: All the information about the Activities can be found in the Documents attached. There is a full description of the Activities and the Tasks.***
Resources	The teacher needs the Scenario information described above.
Task Workload	10 minutes

Activity 1	**Raising Awareness**
Description	The group will understand and learn about the different geographic environments, their strengths and weaknesses and how difficult it is to find the perfect place to settle down.
Total Activity Workload	*50 mins*
Task 1.1	**Pros and cons**
Description	Watch these two presentations on the different concepts which you need to consider and weight when choosing a place to live. https://www.slideshare.net/ismaelcabezudo/perfect-places https://www.slideshare.net/ismaelcabezudo/nowhere-is-perfect Take a look at this world map where 15 very different locations are indicated.  Now that you know where they are, you should agree with the members of the group where you would like to live. To do so, the team secretary will create a shared subfolder onto the Google Driveteam folder under the following name: Activity_year_group letter_Group+group number (e.g. A3RaisingAwareness_3A_Group7

<table>
<tr><td></td><td>You can use the following table to help you take a decision:

<table>
<tr><th>Chosen place</th><th>Positive aspects</th><th>Unwanted consequences</th></tr>
<tr><td>Place 1:</td><td></td><td></td></tr>
<tr><td>Place 2:</td><td></td><td></td></tr>
<tr><td>Place 3:</td><td></td><td></td></tr>
<tr><td>Place 4:</td><td></td><td></td></tr>
</table>

Once you have all agreed on the place you have chosen, you must write a ‘For and Against Essay’ of about 15 lines where you justify your decision.

Finally, upload the new document onto the activity folder on Google Drive under the name: RaisingAwareness.Forandagainstessay_T3.1_GroupX [E1.1].

ASSESSMENT:

Evidence: [E1.1] RaisingAwareness.Forandagainstessay_T1.1_GroupX
Assessment instrument: Rubric 1 - Teacher assessment
Indicators: 2.2.3 [2.2.3.2]</td></tr>
<tr><td>Resources</td><td>● Documents:
○ CAS_How can you advertise your region? ACT 3 : Awareness-raising
● Adequate device with internet</td></tr>
<tr><td>Task Workload</td><td>50 mins</td></tr>
<tr><td>Activity 2</td><td>Location and Climate</td></tr>
<tr><td>Description</td><td>Climate is the set of weather conditions that characterise a region. To study climate, elements of weather are usually analysed for a minimum period of thirty years: temperature, humidity, pressure, winds, rainfall, etc. There are some factors which have an influence on these elements: geographic latitude, altitude or distance from the ocean or the sea. Climate differs from the weather in that the weather describes the conditions in a brief period of time within a specific region.

To better understand the specificities of a place, it is essential to know its location and its climate.</td></tr>
</table>

<table>
<tr><td></td><td>These factors will have an influence on people's character, culture, type of economics, lifestyle, socio-economic status, etc.

Students must justify in which climate area our region belongs to. To do so, they should research climatic data, create a climograph, justify the climate type of our region and create a presentation.</td></tr>
<tr><td>Total Activity Workload</td><td>3 hours</td></tr>
<tr><td>Task 2.1</td><td>Location</td></tr>
<tr><td>Description</td><td>Use both Google Maps and Maps & Directions browsers to search for the missing data about our city in this table. You can learn how to find the required information in Google Maps through the following links:
Google Maps Help
Maps&Directions
 

Create a new document in Google Drive. Insert a table and update the boxes with the missing information. Save the document in the scenario folder under the name Location_Task4.1_NameSurname [E1.2].
<table>
<tr><td>City</td><td></td></tr>
<tr><td>Latitude</td><td></td></tr>
<tr><td>Length</td><td></td></tr>
<tr><td>Altitude</td><td></td></tr>
<tr><td>Distance from the sea</td><td></td></tr>
</table>
ASSESSMENT:</td></tr>
</table>

<table>
<tr><td></td><td>Evidence: [E2.1] Location_Task2.1_NameSurname
NO ASSESSMENT</td></tr>
<tr><td>Resources</td><td>Google Maps
Maps&Directions - tutorial and google maps add-on</td></tr>
<tr><td>Task Workload</td><td>30 mins</td></tr>
<tr><td>Task 2.2</td><td>The Climograph</td></tr>
<tr><td>Description</td><td>Your work group should look for the climate data of your town/city in the following links. If you cannot find your town/city, search for the closest one (it is better if they have about the same altitude).
http://www.weatherbase.com/
http://www.worldclimate.com/
https://en.climate-data.org
https://www.theweathernetwork.com/forecasts/statistics/list
With the resulting data, make a climograph by using GoogleDrive Spreadsheet.
Here is a tutorial: https://youtu.be/01Jw8rOnnGQ
(Video in Spanish | Video only images)
Ensure that both the spreadsheet and the graph look good and that the data is accurately represented: scale, units, etc.
Save the spreadsheet you have created onto your scenario folder under the name Climograph_Task2.2_GroupName [E2.2].
Update the table from task 2.1 with the following information. To do so, you must interpret the climograph data and,where needed, perform mathematical operations in the spreadsheet (*).

<table><tr><td>Wettest month</td><td></td></tr><tr><td>Driest month</td><td></td></tr><tr><td>Total yearly rainfall(*)</td><td></td></tr><tr><td>Average temperature(*)</td><td></td></tr><tr><td>Maximum temperature</td><td></td></tr><tr><td>Minimum temperature</td><td></td></tr><tr><td>Thermal oscillation(*)</td><td></td></tr></table>
Insert an image of the climograph at the bottom of the table.
ASSESSMENT:

Evidence: [E2.2] Climograph_Task2.2_NameSurname
Assessment instrument: Rubric 2 - Teacher assessment
Indicators: 4.1.2 [4.1.2.3-4.1.2.2] 4.2.2 [4.2.2.2-4.2.2.3]</td></tr>
<tr><td>Resources</td><td>List of database climatic links (in Doc attached)</td></tr>
</table>

	ESP: https://youtu.be/cj_ulnXgY9k ENG: (GoogleSheets) https://youtu.be/bKSTZgRKL9Q (Excel) https://youtu.be/01Jw8rOnnGQ
Task Workload	*1 hour*
Task 2.3	**What is the climate in our region?**
Description	Based on the data supplied, justify the climate type of our region and highlight its main features. Create a presentation to explain the location, climate, landscape, flora and fauna of our region. Which climate area does our region belong to? With your team, compare the results of the previous activities. Create a presentation on Google Drive and share this with the other members of the group-class. In the presentation, you must include the resulting data and justify the type of climate, landscape, flora and fauna that our region has. You can search for information about Koeppen's climate classification here: http://blueplanetbiomes.org/climate.htm Your presentation must meet the following criteria: ● The first slide (cover) must state the topic and the members of the group. ● It must include a slide for each of these sections: ○ Location ○ Climate data and climograph ○ Summary of the climatology and climate it belongs to. ○ Landscape ○ Flora ○ Fauna ● The final slide must highlight any positive features regarding location and climate. You must use free license images and graphs. Once created, upload your presentation on the Google Drive folder under the name The climate of our region_Task 4.3_GroupName [E2.3]. ***ASSESSMENT:*** *Evidence:* [E2.3] The climate of our region_Task 2.3_GroupName (presentation) *Assessment instrument:* Rubric 2 - Teacher - Group - Self-assessment *Indicators:* 2.2.2 [2.2.2.3] - 4.1.4 [4.1.4.2-4.1.4.4] 4.1.5 [4.1.5.3]
Resources	*Information about Koeppen's climate classification* *http://blueplanetbiomes.org/climate.htm* *List of Requirements for the presentation (in Doc attached)*

Task Workload	*1,5 hours*
Activity 3	**Demography**
Description	Students will learn how to analyse population pyramids and do a population projection of their region, in order to understand what future needs the region will have regarding demographic policies. Demography according to the United Nations: " Demography is a science whose aim is to study human population and analyse it according to its dimension, structure, evolution and other general variables from a quantitative point of view". Before starting the exercises, please take a lot at this map. It will help you see the population density around the world (number of inhabitants in a specific area). Now, watch the video, read the documents to comment on population pyramids and observe the world population pyramids from 1950 to 2100 below: https://youtu.be/RLmKfXwWQtE Documents http://www.bbc.co.uk/schools/gcsebitesize/geography/population/population_change_structure_rev6.shtml https://www.populationeducation.org/content/what-population-pyramid https://www.populationeducation.org/content/what-are-different-types-population-pyramids World population pyramids from 1950 to 2100: https://populationpyramid.net/es/mundo/2016/ After having watched the video and read the documents, let's learn and practise how to analyse population pyramids.
Total Activity Workload	*3 hours*
Task 3.1	**Analysing the current population pyramid of your region**
Description	Look up in your Regional Institute of Statistics what the current population pyramid looks like. Create a Google document on the scenario folder and save the image. 1. Answer the following question: *Why is it necessary to consult official sources for this kind of information?* Each group must contribute with, at least, one possible answer. 2. Let's interpret the population pyramid.

	A population pyramid can give us a lot of information, but we must know how to interpret it. You must analyse the following data: ● By gender ● By age group The goal of this activity is to improve one's ability to interpret population pyramids. Please, answer the following question on the shared Google document (ACT3_Task3.1 [E3.1]) where you saved the image onto the Google Drive scenario folder, within Activity 3 Demography: ● Note the number of men and women shown on the population pyramid. ○ Is there gender balance? ● Let's analyse the young people segment of the population (people under 16 are not allowed to work so they considered dependant population): ○ Which is the first age rage shown on the pyramid? ○ What can you observe with respect to other age ranges? ● Let's analyse the adult segment of the population (people over 16, the legal working age to 64 therefore, non-dependent population): ○ Which age range has more working people? ● Let's analyse the elderly segment of the population (retired people over 65 therefore, dependent) ○ What can you observe with respect to other age ranges? ○ Which is the maximum age rage shown on the pyramid? ***ASSESSMENT:*** *Evidence:* [E3.1] ACT3_Task3.1 *Assessment instrument:* Rubric 3 - Teacher assessment *Indicators:* 3.1.2 [3.1.2.1-1.3.2.3]
Resources	Link to the Regional Institute of Statistics or https://www.census.gov/data-tools/demo/idb/informationGateway.php
Task Workload	*1 hour*
Task 3.2	**Let's practise the analysis of population pyramids: create an infographic.**
Description	What was the population in 1970 in your region, county or country? In your National Institute of Statistics or in https://www.census.gov/data-tools/demo/idb/informationGateway.phpwhat, find a 1970 pyramid. Analyse it using the same items you did in the previous exercise. To carry out the analysis, use the cooperative structure Round Robin or Pencils in the Centre (some information about it here: http://elblogdelauraweis.blogspot.com/2016/01/pencils-in-centre-or-round-robin.html). With the pyramid that you have found, show the expertise you have gained to comment on the pyramid following the same items as in the previous exercise. You must do it in infographic format. The group secretary will create an account on Canva platform (http://canva.com) or on a similar platform The account should have the username: CRISS_Group_X"

	and a password shared with all the group members. Within Canvas or the other similar platform, you will find the necessary tools to create your infographic. (You can see a Canva tutorial) Upload the infographic [E3.2] onto the shared Google Drive folder from Activity 3 Demography. ***ASSESSMENT:*** *Evidence:* [E3.2] infographic *Assessment instrument:* Rubric 3 - Teacher assessment *Indicators:* 4.1.5 [4.1.5.2-4.1.5.3]
Resources	*FYI* ● Canva: https://www.canva.com/ ● Tutorial Canva (English): https://www.youtube.com/watch?v=WL-WbHwsbs8
Task Workload	*1 hour*
Task 3.3	**Let's draw conclusions. Presenting your conclusions**
Description	It's time to calculate: How many people will live in my region or country in 2050? What will the population be like in my region in 2050? Demography projections help plan the resources supplied by the states to establish long term policies. For instance, if we foresee that the birth rate is stuck, policies will boost the birth rate by offering maternity benefits. Visit the U.S. Census Bureau (https://www.census.gov/2020census) and find which was the population projection of your country in the 2030s, 2040s and 2050s. Brainstorming idea: what demographic policies should your country establish to get a sustainable demography in the future. To present your conclusions, create a presentation [E3.3] on Prezi or another similar platform. Upload the link onto the Google Drive folder of activity 3. ***ASSESSMENT:*** *Evidence:* [E3.3] presentation *Assessment instrument:* Rubric 3 - Teacher assessment *Indicators:* 4.2.2 [4.2.2.2-4.2.2.3]
Resources	Link to the Regional Institute of Statistics or https://www.census.gov/data-tools/demo/idb/informationGateway.php
Task Workload	*1 hour*
Activity 4	**Transport and infrastructures**

<table>
<tr><td>Description</td><td>Transport is one of our basic necessities. Without transport, there would not be any economic or personal development. Transport's effective/good function relies on proper infrastructure. Let's not forget the effects derived from its use: the ecological footprint (the pollution effects of each means of transport), mobility (the ability to independently travel to places on one's own) and accessibility (ease of access to services).</td></tr>
<tr><td>Total Activity Workload</td><td>3,5 hours</td></tr>
<tr><td>Task 4.1</td><td>Advantages and disadvantages of means of transport</td></tr>
<tr><td>Description</td><td>From the transport related resources that can be found on the internet, analyse and list the advantages and disadvantages of the various means of transport. As an example, visit the following links:
https://www.youtube.com/watch?v=v9J6gDya40k
https://www.youtube.com/watch?v=NhU8QxKOnpk
https://www.youtube.com/watch?v=6I5bmxnmMKw
http://onlinepubs.trb.org/Onlinepubs/general/criticalissues13.pdf
Create a shared GoogleDrive folder under the name ACT4_{nameGroup}, where {nameGroup} includes the surnames of the group members in alphabetical order (e.g.: ACT4_Gascoigne-López-Monroy-Zabala)
Create a GoogleDrive document within the group folder under the ACT4_Task1, for your conclusions.

Find some links like the examples above (not only youtube links)

Complete a table, named "analysis", with the resource links and brief explanations of the content (3 or 4 lines). An example of table is available
From more different sources, better conclusions (even if they are the same)
Include at least 4 or 5 links for each mean of transport
You can see an example for the table's structure below

ANALYSIS
<table>
<tr><td>Resource (link, book, article, etc.)</td><td>Brief explanation of the content</td></tr>
<tr><td></td><td></td></tr>
</table>

From this analysis table, find the advantages and disadvantages of every means of transport you have analysed
Create a table, named "conclusions", for structuring your ideas
You should include at least 3 or 4 means of transport
You can see an example of the table's structure below

CONCLUSIONS
<table>
<tr><td>Means of transport</td><td>Advantages</td><td>Disadvantages</td></tr>
<tr><td></td><td></td><td></td></tr>
</table>
ASSESSMENT:

Evidence: [E4.1] ACT4_Task1
Assessment instrument: Rubric 4 - Teacher assessment</td></tr>
</table>

	Indicators: 3.1.3 [3.1.3.2]
Resources	*Examples:* https://www.youtube.com/watch?v=v9J6gDya40k https://www.youtube.com/watch?v=NhU8QxKOnpk https://www.youtube.com/watch?v=6I5bmxnmMKw http://onlinepubs.trb.org/Onlinepubs/general/criticalissues13.pdf
Task Workload	*30 mins*
Task 4.2	**Write a narrative about a trip**
Description	Write a narrative of about 16 lines to describe the sensations, emotions and experiences generated by a trip from your town to the nearest airport or harbour. To make the narrative more visual, in the GoogleDrive generated: ● Create a Google Doc within the group folder under the ACT4_Task2. ● Take a general screenshot of GoogleMaps with the trip itinerary, both if you are choosing public transport or a car. ● The narrative, which will be written in first person singular and with the narrator as the main character, must consist of three different parts: ○ Setting: this will involve the place, characters and problem that the story will trigger. ○ Body: this will be the story telling part. It will be the longest part of the narration. ○ Resolution: this will include the end of the story. You can include Street View screenshots as part of the narrative. ● Use http://brianfolts.com/driver/ to see the visual itinerary ○ Select the "Advanced Options" checkbox to define, among others, the travel mode. ○ Download the animated GIF and save it on the Drive. You can follow this example:  ***ASSESSMENT:*** *Evidence:* [E4.2] ACT4_Task2 *Assessment instrument:* Rubric 4 - Teacher assessment *Indicators:* 4.1.3 [4.1.3.1]
Resources	*Street View for screenshots* http://brianfolts.com/driver/ *for visual itinerary*
Task Workload	*1 hour*
Task 4.3	**Draw a comic strip**

Description	Create a comic strip with the itinerary description that you have narrated in exercise 4.2. Create a Google Document within the group folder under the name ACT4_Task3. Guidelines for your comic strip: ● You must use your second or third taught language at school. ● It must contain four comic panels. ● The background must show the key features of the selected place. ● The cartoon protagonists are the members of your group. ● The secondary characters must show the key features of the inhabitants of the selected place. Each panel must include at least two bubbles. ● The story must have a title. ● To create the comic strip, use a web tool such as https://www.pixton.comand publish the result as a Google Drive document. You can check out a Pixton tutorial here: https://www.youtube.com/watch?v=2uj5lxvjI_0 (English) ***ASSESSMENT:*** *Evidence:* [E4.3] ACT4_Task3 *Assessment instrument:* Rubric 4 - Teacher assessment *Indicators:*
Resources	*web tool such as https://www.pixton.com/* *Pixton tutorial: https://www.youtube.com/watch?v=ZYAi4FKWqrq*
Task Workload	*2 hours*
Activity 5	**Leisure, culture and traditions**
Description	First, the students must research the popular festivities and celebrations in their county or region and then they must add them in a timeline diagram using a 2.0 tool. Finally, they must design a weekend festival programme for their neighbourhood using a brochure creation tool.
Total Activity Workload	*5.5 hours*
Task 5.1	**Table of traditional and culture festivals**
Description	The team secretary will create a shared subfolder onto the group Google Drive folder under the name: Activitiy_year group+group number (for example, A5 Leisure and culture_3A_Group7). It is common knowledge that each town, county, region or country has its own festivities which are celebrated in a specific area. Some of these festivities

<table>
<tr><td></td><td>commemorate the celebration of a saint's life and, other times, they celebrate a particular event related to the culture or gastronomy of the town or county.

We propose you research which are the popular festivities celebrated in your county or region throughout the year. You should create a Google Drive spreadsheet with, at least, the following information:

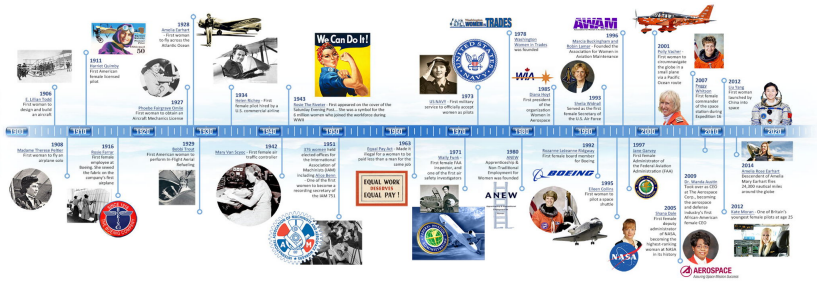
<table>
<tr><td>Name of the festivity</td><td></td></tr>
<tr><td>Town/Place</td><td></td></tr>
<tr><td>Indoors/ Outdoors</td><td></td></tr>
<tr><td>Season/ date</td><td></td></tr>
<tr><td>Activities: morning/afternoon/ evening</td><td></td></tr>
<tr><td>Activities: Children/ youngsters/ adults</td><td></td></tr>
<tr><td>Keywords used (search strategy)</td><td></td></tr>
</table>

Remember to write down all the netgraphy you have used, specifying which information you have found on which website. Don't forget to use a research plan using appropriate keywords.

Finally, upload the document you have created onto the Google Drive folder under the name: Festivities yearly table_Task5.1_3A_GroupX [E5.1].

ASSESSMENT:

Evidence: [E5.1] Festivities yearly table_Task5.1_3A_GroupX (spreadsheet - table)
Assessment instrument: Rubric 5 - Teacher assessment
Indicators: 3.1.3 [3.1.3.1-3.1.3.2] 4.1.1 [4.1.1.1-4.1.1.3-4.1.1.4]</td></tr>
<tr><td>Resources</td><td>GoogleDrive.
Spreadsheet</td></tr>
<tr><td>Task Workload</td><td>30 mins</td></tr>
<tr><td>Task 5.2</td><td>Timeline of traditional and culture festivals</td></tr>
<tr><td>Description</td><td>Once you have founded and organised all the information, you should have a broader vision of popular festivities and cultural events celebrated in your country or region.
You should now choose a different country or region in your country and, once you have found information about its popular festivities and cultural celebrations, transfer this onto a chronological diagram.
A chronological or timeline diagram [E5.2] is the perfect tool to create a sequence of events which summarises, in a logical and graphical way, the facts with the primary and secondary ideas of a specific topic.
To carry out your timeline diagram you must follow these steps:
● Set the period of time for which you need to create the diagram.
● Set the start and end dates of your timeline diagram.
● Introduce the most significant dates within the diagram and then provide the data (texts, images, videos, etc.) which took place on these specific dates.</td></tr>
</table>

	You can work out your timeline with any web tool you know. If you haven't created a timeline before, we suggest using the following tool: TIKI TOKI, a web tool which creates timeline diagrams. You can learn about the main features of this tool by watching the following tutorial: https://www.youtube.com/watch?v=WOXWQo8xLS8  Source: http://www.ajactraining.org/women-diversity/timeline ***ASSESSMENT:*** *Evidence:* [E5.2] Timeline *Assessment instrument:* Rubric 5 - Teacher assessment *Indicators:* 4.1.3 [4.1.3.5] 4.1.5 [4.1.5.1] 4.2.1 [4.2.1.4]
Resources	*Any timeline making tool that students are familiar with* *Tiki Toki: https://www.tiki-toki.com/* *How to use Tiki Toki. Video-tutorial in English:* *https://www.youtube.com/watch?v=WOXWQo8xLS8*
Task Workload	*1 hours*
Task 5.3	**Brainstorming. Your ideal neighbourhood festival.**
Description	*Previous tasks:* The team secretary will create an account on PADLET. The account will have the following username: "CRISS_Group_X" and a password shared with all the group members. This account should have the following username: "CRISS_Group_X" [E5.3] and a password shared with all the group members. On this account, include all the brainstorm ideas which will help you carry out the following task (creation of a festival programme for your neighbourhood) *Introduction:* The aim of this task is to organise a local festivity weekend which includes leisure and cultural activities for people of all ages related to your neighbourhood. It is essential to take into consideration the climate, geography, availability of venues in the neighbourhood and traditions.

	Careful! When designing your festivities programme, you must take into account the following requirements: ● We want everybody to have a good time. Thus, your activities should be appealing to people of all ages. ● You must include a minimum of two cultural activities. ● Festivities must last a weekend. ● The programme of one of the days should include a community meal. Design a brochure. Prepare the festivities programme. The programme must include: ● The items from the table you created in exercise 1: name, reason, season, date and time of events, etc. ● You must indicate, in an orderly manner, time and location where the activities will take place. For this reason, your brochure must include a map of the neighbourhood with the activities shown on the map by means of QR codes, which will provide information about the activity. ● The brochure must include an image which clearly identifies the festivity. Brainstorming for the festivities programme In order to define the different activities that you will plan along the weekend, we suggest to use a digital collaborative tool called Padlet. The aim of this task is to create a brainstorming which helps you define the activities that you would like to include in your neighbourhood festival. From all the proposed ideas, you must agree on which activities you will include in your final festivities programme. . ***ASSESSMENT:*** *Evidence:* [E5.3] Brainstorming (padlet) *Assessment instrument:* Rubric 5 - Teacher assessment *Indicators:* 2.2.2 [2.2.2.2] 2.2.3 [2.2.3.4]
Resources	*www.padlet.com*
Task Workload	*1,5 hours*
Task 5.4	**Design the programme for your ideal neighbourhood festival**
Description	Creating a brochure Once you have defined the activities to be carried out in your neighbourhood festivity, you need to include them in order on a brochure. Assuming that you are very interested in promoting the touristic features of your city, we invite you to write the brochure in English. To complete this task you can use any web tool you know. If you previously haven't used any web tool to do this work (posters, leaflets, presentations, etc.), consider one of the following tools: Canva (www.canva.com) or Piktochart (www.piktochart.com). These are tools which can be used to create infographics,

posters, brochures, etc. with a variety of templates and resources that will definitely help you with the design of your proposal.

The contents of your brochure are as follows:

- The inside of the brochure must include a map of the neighbourhood with QR codes (http://www.codigos-qr.com/generador-de-codigos-qr/) which will indicate activity and location. These codes will provide extra information about each activity such as the items from the table you created in exercise 1: name, reason, season, date and time of events, etc.

The front and back covers must include:

- A representative image of the neighbourhood or the festivity.
- The name of the neighbourhood and festivity.
- Dates
- Organisers
- Sponsors
- ...

Source: http://www.tullamoreartsfestival.com/festival-programme

When you have finished your brochure, you must email the link to your teacher. Please, follow the next instructions.

For different proposals, you will have to send a different email. There are also some rules you need to consider when you need to be more or less formal.

Following are a few rules:

For: The secretary of your group is responsible for sending the message. He or she has to introduce in this field the teacher, as well as the rest of the members of the group. If you don't want everyone's address to be visible, you can use the field BCC.

	Subject: Here you have to clearly present the theme. For example, you can give information about the group and also the activity you are talking about. Attachment: As you are probably aware of, you need to take into account the size of the field. Remember to tag the field with an easy name indicating its content. Message: It is really important to start your message politely. Start with "Dear" followed by the name of the addressee. Continue with an introduction of the purpose of your email and afterwards, further explain its aim. Remember to end your message with a polite sign-off and your name. For example: Best regards Finally, upload the document in PDF format onto the folder you have created on Google Drive under the name: Creating a brochure_Task5.2_3A_GroupX [E5.4]. ***ASSESSMENT:*** *Evidence:* [E5.4] Creating a brochure_Task5.2_3A_GroupX *Assessment instrument:* Rubric 5 - Teacher assessment *Indicators:* 4.1.5 [4.1.5.1] 4.2.1 [4.2.1.2]
Resources	*Any brochure design tool that students are familiar with* *www.piktochart.com* *www.canva.com*
Task Workload	*2,5 hours*
Activity 6	**Route**
Description	This activity is the final product done all through the scenario. Students will have to create an itinerary around their region with the given requirements.
Total Activity Workload	*4 hours*
Task 6.1	**Designing your guide**
Description	1. The route should be aimed at young people of your age, who travel with their families. 2. The route should last two days (for example, a weekend). 3. You must decide the theme and the name of the route. 4. The route must specify the itinerary, the means of transport, the departure and arrival venue, the stops in the various points of interest, accommodation and restaurant facilities. 5. Meals should be made with local products of the area. 6. The route price must be maximum 500€ (total price for 2 adults and 1 child). 7. The itinerary must include / cover the basic needs of participants (toilet facilities, drinks, resting places, shopping areas, mobile phone coverage, etc.) It's time to create a route to promote your region or county. You can find inspiration by browsing Barcelona Turisme website:

	http://www.barcelonaturisme.com/wv3/en/page/13/themed-routes.html Please note that the design of the proposed route around your region or county must meet the following requirements: All the requirements must be included in the ACT6_Template (document attached). Do not forget to first create a copy of the original document and after doing that, to upload the new document onto the activity folder in Google Drive under the name: Route template_Task6.1_3A_GroupX [E6.1]. ***ASSESSMENT:*** *Evidence:* [E6.1] Route template_Task6.1_3A_GroupX *Assessment instrument:* Rubric 6 - Teacher assessment *Indicators:* 3.1.3 [3.1.3.1]
Resources	*CAS_County_ACT6_Template*
Task Workload	*1 hours 50 mins*
Task 6.2	**Publishing your guide**
Description	The team secretary must create an account on the TRIPLINE platform (https://www.tripline.net/), under the user name: "CRISS_Group_X" and the password must be shared with all the team members. In order to publish and disseminate your planned route [E6.2], we suggest that you use a digital collaborative tool called TRIPLINE. You can read about the main features of this tool through the following tutorial in Spanish: https://escrituraperiodisticamultimedia.files.wordpress.com/2012/09/guc3ada-bc3a1sica-tripline.pdf ***ASSESSMENT:*** *Evidence:* [E6.2] Route publishing *Assessment instrument:* Rubric 6 - Teacher assessment *Indicators:* 2.1.2 [2.1.2.2]
Resources	*www.tripline.net*
Task Workload	*2 hours*
Task 6.3	**Send and email**
Description	Once you have completed your route, you must email it to your teacher [E6.3]. Please, follow the instructions given below: For: The secretary of your group is responsible for sending the message to the teacher, as well as to the rest of the members of the group. Remember that if you don't want all the addresses to be visible, you can use the BCc field.

	Subject: Here you have to clearly present the theme. For example, you can give information about the group and also describe the activity you are working on. Attachment: As you probably already know, you will have to take into account the size of the field. Remember to tag the field with an easy name indicative of its content. Message: It is really important to start your message politely. Start with "Dear" followed by the name of the addressee. You could then introduce the purpose of your email and afterwards, further explain its aim. Don't forget to end your message with a polite sign-off and your name. For example: Best regards. ***ASSESSMENT:*** *Evidence:* [E6.3] Email sent *Assessment instrument:* Rubric 6 - Teacher assessment *Indicators:* 2.1.2 [2.1.2.3]
Resources	
Task Workload	*10 minutes*

3.3.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - RAISING AWARENESS

Task 1.1 - Pros and cons	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.2.3.2 Use of constructive and positive communication.	The attitude does not favor communication. The student does not accept the criticism of others and it is hard to reach points of agreement.	The student does not show special interest in action so to have good communication. He/she is not very receptive to incorporate opinions and suggestions from others.	The student maintains a respectful attitude that favors communication. He/she expresses interest in others' opinions, finds the consensus and shows willing to give in to get it.	The student maintains an attitude that stimulates constructive dialogue and allows for open and sincere communication. He/she listens to criticism, accepts it, analyses and is receptive to incorporate them. Also, he/she takes the initiative when looking for the consensus.

ACTIVITY 2 - CLIMATE

Task 2.2 - The climograph	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.1.2.2 Appropriate use of one or more sheets to manage data and graphs.	Most calculated data are wrong and references to the data cells are not used.	The calculated data are right but references to the data cells are not used.	Most of the calculated data are right and are calculated by making references to the data cells.	The calculated data are right and are calculated by making references to the data cells.
4.1.2.3 Quality of the graphs (type, legend, colours, title, etc.).	The graph does not present the information requested, or it is not in the appropriate format.	The graph presents the requested information only on one axis. It has errors in the title, legends, units.	The graph presents the requested information. It has small errors in the title, legends, units.	The graph presents the requested information which is correct in terms of title, legend, units.
4.2.2.2 Appropriate use of the different tools to represent knowledge.	The use of the different tools to represent knowledge is not appropriate.	The use of the different tools to represent knowledge is not often appropriate.	The use of the different tools to represent knowledge is appropriate, but something should be done better.	The use of the different tools to represent knowledge is always appropriate.
4.2.2.3 Coherence between content and representation.	There is no coherence.	There is a simple coherence.	The coherence is right.	The coherence is very good.

Task 2.3 - What is the climate in our region?	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.2.2.3 Use of different online collaborative tools.	No use of online collaborative tools and lack of interest in doing so.	Able to use the online collaborative tools with guidance.	Demonstrates reasonable confidence in the use of online collaborative tools. Some help is needed in order to post the answers.	Confident in the use of online collaborative tools and makes really good independent use of them.
4.1.4.2 Adequacy of the content taking into account the	The content is not relevant nor adequate.	Some of the content is not appropriate or does not answer the project questions. More	The content is appropriate but it could be analysed in more detail. Some important	The content is carefully analysed, studied and selected. All the questions are

goals of the project.		research work should be done.	aspects/answers are missing or are not completed fully.	answered with detail.
4.1.4.4 Quality of the presentation (linguistics, structure coherence, index, objectives, conclusion…).	Poor quality of the presentation considering linguistics, structure, coherence, index, objectives, conclusion, etc.	Sufficient quality of the presentation considering linguistics, structure, coherence, index, objectives, conclusion, etc.	Good quality of the presentation considering linguistics, structure, coherence, index, objectives, conclusion, etc.	Excellent quality of the presentation considering linguistics, structure, coherence, index, objectives, conclusion, etc.
4.1.5.3 Quality of the digital content taking into account the aim of the project (composition, message, weight of meanings, clarity, structure coherence, etc.).	The final product does not conform to the established criteria or the objective of the project.	The final product conforms to some established criteria or only partially covers the objective of the project.	The final product conforms to almost all established criteria, and to the objective of the project.	The final product conforms to the established criteria and the objective of the project

ACTIVITY 3 - DEMOGRAPHY

Task 3.1 - Analysing the current population pyramid of your region	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	**2**	**3**	**4**
3.1.2.1 Quality and suitability of concepts or keywords' list for the information search.	The student does not use appropriate keywords.	The student uses less appropriate keywords than inappropriate.	The student uses more appropriate keywords than inappropriate.	All keywords are appropriate.
3.1.2.3 Adequacy of search filters.	The student does not use search filters.	The student uses some poor search filters.	The student uses some suitable search filters to find information he/she needs.	The student applies the most suitable/correct filters to find exactly what he/she needs.

Task 3.2 - Let's practise the analysis of population pyramids: create an infographic	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.1.5.2 Adequately format digital content (elements in the document, organization, etc.).	There has not been any reflection in the way the content was organized. The presentation is quite poor.	The presentation should be revised to integrate all the content better. It needs a bit more reflection.	The content has been presented well. The presentation is well organized but there is some room for improvement.	The organization of the content has been carefully thought. The presentation is excellent, all the elements required are present and all the information is relevant and well organized.
4.1.5.3 Quality of the digital content taking into account the aim of the project (composition, message, weight of meanings, clarity, structure coherence, etc.).	The final product does not conform to the established criteria or the objective of the project.	The final product conforms to some established criteria or only partially covers the objective of the project.	The final product conforms to almost all established criteria, and to the objective of the project.	The final product conforms to the established criteria and the objective of the project

Task 3.3 - Let's draw conclusions. Presenting your conclusions	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.2.2.2 Appropriate use of the different tools to represent knowledge.	The use of the different tools to represent knowledge is not appropriate.	The use of the different tools to represent knowledge is not often appropriate.	The use of the different tools to represent knowledge is appropriate, but something should be done better.	The use of the different tools to represent knowledge is always appropriate.
4.2.2.3 Coherence between content and representation.	There is no coherence.	There is a simple coherence.	The coherence is right.	The coherence is very good.

ACTIVITY 4 - TRANSPORT AND INFRASTRUCTURES

Task 4.1 - Advantages and disadvantages	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
3.1.3.2 Use of different sources searching the same information.	The student does not use any source on the Internet.	The student uses 1 source on the Internet to search for the same information.	The student uses 2 and 3 sources on the Internet to search for the same information.	The student uses more than 3 sources on the Internet to search for the same information.

Task 4.2 - Narrative	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.1.3.1 Editing or improving digital content using the appropriate options of a tool.	The tool is used at a very basic level. The different options are not considered. The digital content is poor and basic.	The tool is used at a basic level, many options are not used. The information could be presented better if all the options were considered.	The tool is used well but not at its full potential, some options are not used or taken into consideration. The digital content could be improved and made more attractive.	There is previous work to learn to use the tool and make the most of it. The content is well selected in order to make the most of the tool. The majority of the tool options are used well.

Task 4.3 - Create a comic strip	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.1.5.2 Adequately format digital content (elements in the document, organization, etc.).	There has not been any reflection in the way the content was organized. The presentation is quite poor.	The presentation should be revised to integrate all the content better. It needs a bit more reflection.	The content has been presented well. The presentation is well organized but there is some room for improvement.	The organization of the content has been carefully thought. The presentation is excellent, all the elements required are present and all the information is relevant and well organized.

ACTIVITY 5 - LEISURE, CULTURE AND TRADITIONS

Task 5.1 - Popular and cultural festivities table	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
3.1.3.1 Quality, reliability, comprehension and adequacy of the information found.	Do not find the information, or it is not adequate or has no quality.	Do not find most of the information. The information found is adequate or has quality.	Find almost all the required information. The information found is adequate and has quality.	Find all the required information. The information found is relevant, adequate and has quality.
3.1.3.2 Use of different sources searching the same information.	The student does not use any source on the Internet.	The student uses 1 source on the Internet to search for the same information.	The student uses 2 and 3 sources on the Internet to search for the same information.	The student uses more than 3 sources on the Internet to search for the same information.
4.1.1.1 Creation or modification of text and tables using the appropriate options of a tool.	The table and text format is not consistent. The necessary rows have not been added. The units are missing.	Rows are added, but the information is unordered or does not have a consistent format. Missing unit indicators.	Almost all the information is presented in a coherent and orderly format. The corresponding units are indicated.	The information is presented clearly and coherently.
4.1.1.3 Format quality of the text and the tables (wording, fonts, size, etc.).	There is no format quality in the digital content.	The format quality is deficient in the digital content.	The format quality is correct and almost followed in all the digital content.	The format quality is excellent and followed in all the digital content.
4.1.1.4 Relevance of the information according to the objectives.	Information is irrelevant and does not answer the questions of the project. There is no connection among the resources.	Some information is not relevant or coherent. More information is required to be able to understand the content.	The information is related and coherent to the project but a more thoughtful selection criteria are needed. Some content is not well connected or explained.	The information is carefully selected and it is relevant to the project. There has been some thinking before and it is reflected in the work.

Task 5.2 - Timeline	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.1.3.5 Relevance of the product according to the objectives.	The product is not appropriate for the purpose of the project. Many final task products are missing.	The product could be more adequate for the purpose of the project. Not all the products required are present. It could be	The product is adequate for the purpose of the project. Some minor details need to be corrected.	The product is very adequate for the purpose of the project. It is a perfect compilation of the work done.

		improved.		
4.1.5.1 Integration of the elements in different formats into a digital document (text, images, video, etc.) using the appropriate options of the tool selected.	The student does not use elements in different formats.	The student does not use many formats and they are not integrated at all.	The student uses some formats and the majority of the parts are well integrated, but there are some minor errors.	The student uses a huge range of formats and all parts of the presentation are well integrated.
4.2.1.4 Adequacy of the content taking into account the goals of the project.	The presentation shows less than 50% of the tasks of the project.	The presentation shows 50% of the tasks of the project.	The presentation shows more than 50% of the tasks of the project and less than 75%.	The presentation shows more than 75% of the tasks of the project.

Task 5.3 - Brainstorming. Your ideal neighbourhood festival	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.2.2.2 Quality of interventions: argumentation of one's own interventions and consideration of the interventions of the group.	The interventions are neither argued nor coherent. No new content provided.	To some extent the interventions are argued. No new content provided.	The interventions are argued, but there is not always new content added.	The interventions are argued, coherent and new content added.
2.2.3.4 Equitable and efficient communication.	The student does not express his/her opinions effectively and does not respect the turn of the others.	The student does not express his/her opinions effectively but respects the turn of the others.	The student expresses his/her opinions effectively and respects the turn of the others.	The student expresses his/her opinions effectively and respects the turn of the others, and helps the group to act in a similar way.

Task 5.4 - Design the programme for your ideal neighbourhood	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4

festival				
4.1.5.1 Integration of the elements in different formats into a digital document (text, images, video, etc.) using the appropriate options of the tool selected.	The student does not use elements in different formats.	The student does not use many formats and they are not integrated at all.	The student uses some formats and the majority of the parts are well integrated, but there are some minor errors.	The student uses a huge range of formats and all parts of the presentation are well integrated.
4.2.1.2 Originality of the aesthetic.	The student does not take into account a chromatic range, images in the same style, typographies...	The student rarely takes into account the elements related to aesthetic and originality (a chromatic range, images in the same way, typographies...).	The student takes into account almost all of the elements related to aesthetic and originality (a chromatic range, images in the same way, typographies...).	The student takes into account a chromatic range, images in the same way, typographies...

ACTIVITY 6 - ITINERARY

Task 6.1 - Designing your guide	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
3.1.3.1 Quality, reliability, comprehension and adequacy of the information found.	Do not find the information, or it is not adequate or has no quality.	Do not find most of the information. The information found is adequate or has quality.	Find almost all the required information. The information found is adequate and has quality.	Find all the required information. The information found is relevant, adequate and has quality.

Task 6.2 - Publishing your guide	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.1.2.2 Knowledge of the advantages and disadvantages of	The digital tools and platforms are used without any reflection to communicate and	The digital tools and platforms used are not sufficiently appropriate to communicate and	The digital tools and platforms used are appropriate to communicate and publish.	The digital tools and platforms used are highly appropriate to communicate and

different forms of digital communication and when it is appropriate to use each.	publish.	publish.		publish.

Task 6.3 - Send and email	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.1.2.3 Suitability of the tool used for communicating and sharing information.	Student's explanations about the agreement / disagreement regarding other tools and the process of coming to terms are confusing and poorly worded.	Student's explanations about the agreement / disagreement regarding other tools and the process of coming to terms are clear but poor (e.g. work with email is good enough for me / whatever my classmates decide is fine).	Student's explanations about the agreement / disagreement regarding other tools and the process of coming to terms are clear and adequate.	Student's explanation is clear and adequate and also gives links or technical reasons to justify the opinion.

3.4. CAS: "My Internet…"

3.4.1. SCENARIO INTRODUCTION

Author: George Gogoulos (RDE)

"My Internet…" is a cooperative interdisciplinary project and aims to inform and raise awareness of safe and positive use of digital tools and technology. The objective of the project is that each group should make a proposal for their own Internet (utilizing the slogan "Create, Connect and Share Respect: A better internet starts with you" on 2018 Safer Internet Day) and present it.

The project **is designed for students of** 14-16 **years old**.

"My Internet…" consists of 6 **activities and has a duration of** 9 **hours and 20 minutes**.

The learning methodology (or instructional approach) that will be used in this project **is** Cooperative learning and **will be used** because as an instructional method is based on constructivist learning theory, in which learners work on an authentic, ill- defined project in a group and demonstrate their understanding by performing the project. Learners are constantly involved in problem solving in which they apply their content knowledge to address real-world issues. **Students will develop the work** in a collaborative way and in some specific cases individually. **The curricular / disciplinary competences involved in the scenario are** communication, learning to learn, digital competence and English. ICT and Internet safety act as drivers of the project and English or/and other foreign languages provide necessary tools to develop it.

The Digital competence is developed through the control and management of group work, the design and management of digital content, the development of critical thinking, the presentation of results and the development of the final product.

The subjects involved are ICT/Computer Science and English or other languages. ICT/Computer Science are a means of experimentation and discovery and English or other language competence is necessary to develop the content **and the main themes are**: **ICT/Computer Science**:

- Plan, Create, Present, Communicate and Collaborate
- Communication using Internet services
- Creating collaborative documents
- Creating collaborative presentations
- File sharing
- Plan, organization and management of collective / collaborative work
- Creating, modifying, and developing digital content
- Interactive digital resources for the representation of tables
- Work safely on the Internet
- Good internet usage practices

English/ other foreign languages:

- Listening Comprehension (understanding what is said on a short video)
- Writing (definitions of terms, presentation, article for school newspaper, comic strip)
- Reading (reading each other's work)
- Translation (subtitling)

Other areas dealt with:

- Vocabulary related to the internet and internet safety

- Use of semi-formal / informal language
- Some students may require slang expressions to be used in the comic strip

- Grammar: though the focus will be on communication rather than grammatical accuracy, several structures will have to be revised, such as the tenses and Passive Voice

- Guidelines for writing the specific text types

The assessment of "My Internet..." is carried out through a formative and summative assessment in which teachers are not the only evaluators. Students also participate by assessing themselves and their classmates.

Teacher assessment will be used as an ongoing process of gathering information at all stages of the work. It will be used to guide the work, attitudes and development of competences, etc. At the end of the project, the teacher will make a summative assessment of all the evidence, utilizing the students' e-portfolio.

Self-assessment and peer (group)-assessment will be used because this combination fosters reflection on one's own learning process and one's learning activities compared to the other members in the group or class.

The assessment instruments developed are rubrics and scale. **The evaluation is planned** during and after the activities and at the end of the project, depending on each activity.

3.4.2. SCENARIO ACTIVITIES AND TASKS

Activity 0	**Introduction**
Description	In this activity the teacher is going to introduce the CAS. Teacher will explain the principal information of the Scenario: what students are asked to do (make a proposal for their own Internet -utilizing the slogan "Create, Connect and Share Respect: A better internet starts with you" on 2018 Safer Internet Day- and present it) and how they will work (in groups and individually).
Total Activity Workload	5 minutes
Task 0.1	**Explanation about the Scenario**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** The teacher will explain to the students the principal information of the Scenario: -The aim of the scenario is to exploit students' knowledge and attitudes towards the Internet and its applications, so that through their collaboration for the development of activities they can make their own proposal for a better Internet with the slogan "Create, Connect and Share Respect: A better internet starts with you".

	-The Scenario has 6 activities (introduction activity plus 5 activities) and its duration is 9 hours and 20 minutes. In the last activity students will make a proposal for their own Internet (utilizing the slogan "Create, Connect and Share Respect: A better internet starts with you" on 2018 Safer Internet Day) and present it. To do that students will need to research information, watch some videos, make discussions… -Students will work in a collaborative way. Students will make the groups (4-5 people). Each student will adopt a role and its responsibilities. Despite this, some activities will be done individually. -The teacher and the groups will be active in the assessment of the Scenario (teacher assessment, peer assessment and self-assessment). The assessment instruments will be rubrics. The assessment is planned during or after the activities and at the end of the project. This task will be done in the **students' mother language.**
Resources	The teacher needs the information described above about the Scenario.
Task Workload	5 minutes
Activity 1	**Groups**
Description	This activity involves preparing students to work in groups. Each group assigns roles to the members and gives a group name. The group will record the main contact details of team members in a collaborative document (in G-sites) and create a folder in the cloud to share all the documents that they will generate during the project.
Total Activity Workload	**1 hour 30 minutes** task 1.1 - 1 hour task 1.2 - 15 minutes
Task 1.1	**Roles**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** During the project, students work in groups and they need to define roles, name the team, and create a cooperative document including that information and share it with each other and their teacher. Each group will choose their own roles to ensure that the coordinator's role must be in one of the roles chosen and their responsibilities. All the members will give a name to their group and the teacher will give a number for it. Once the roles have been assigned, the coordinator must create a Google document and call it "*MyInternet-Task1.1-Roles-GroupX*" [E1.1] (X means the number of your group). For example, if a student's group is number 4, you must call it "*MyInternet-Task1.1-Roles-Group4*". This Google document must include: • number of the group • name of the group • names and surnames (or last names) of the members • e-mail of members • role that each member will adopt during the CAS and their responsibilities.

	It can also include a photo of every member (see "*Template roles*" document as an example). Once the document is finished, the coordinator will upload and share the document with the members of his/her team and the teacher. Also, it has to be delivered in the e-portfolio.
Resources	• Documents: ○ Roles and responsibilities document • Adequate device with internet
Task Workload	1 hour
Task 1.2	**Shared folder**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** The coordinator of each group will create a group's folder [E1.2] in the cloud and share it with his/her group members and teachers. Name it "MyInternet_Group*X*_*Nameofthegroup*". During the project, all the documents made by the group or students have to be included in this group's shared folder. Each group should have their own organization (students decide it) in the folder to include the individual and group documents. **<u>Teaching notes:</u>** ***B) ASSESSMENT:*** *Evidence:* [E1.2] Group's folder *Assessment instrument:* Assessment instrument 1 *Indicators:* 3.2.1 [3.2.1.2-3.2.1.3]
Resources	• Adequate device with internet
Task Workload	15 minutes
Task 1.3	**Group's Diary**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** Each group must make a description and an evaluation of the work carried out at the group level and at the individual level as a diary [E1.3]. At the beginning of each session, the group will check the agreements of the last session. At the end of each session, the group and each student will check what they did, how they did their work, identify the good and bad points of their work management and to come up with an agreement on those points that they have problems to avoid in the following sessions. Also, each student will assess their-self. Once the content is completed, it has to be delivered in the e-portfolio. **<u>Teaching notes:</u>**

	The teacher should provide in each session 10 minutes to the Group's Diary (5 at the beginning of it and 5 before the end of the session). ***B) ASSESSMENT:*** *Evidence:* [E1.3] Group's diary *Assessment instrument:* Assessment instrument 1 *Indicators:* 2.2.1 [2.2.1.1-2.2.1.2]
Resources	• Adequate device with internet
Task Workload	10 minutes (5 beginning session - 5 end session)
Activity 2	**Internet... What we want**
Description	The Internet is a fabulous place which we visit and use daily. People can search for information, meet friends, listen to music and create our digital world. In this activity, the team will note the advantages and disadvantages of using the Internet in their daily lives and in school (things they want or do not want when they use the Internet and Internet security issues). Also, they will watch, on the computer, a short film about the Internet uses and will record any risks / problems that can be identified in the short film.
Total Activity Workload	**1 hour 30 minutes** task 2.1 - 30 minutes task 2.2 - 1 hour
Task 2.1	**What do you want? What do you not want?**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** Each student initially brainstormed about things they do daily using web applications on the internet and answer the following questions: (1) What do you want on the Internet? or (2) What do you not want on the Internet?. To write down the ideas of the brainstorming, students will use a collaborative tool, such as a padlet [E2.1]. Students need to tag one's own ideas with his/her name and the tag "Before". Once the content is completed, it has to be delivered in the e-portfolio.
Resources	• Adequate device with internet
Task Workload	30 minutes
Task 2.2	**Problems/ Dangers of the Internet**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** Students watch a short film: TheGroceryStore about issues related to online use and safety. Afterwards students discuss with their group any dangers/problems they have recognized in the short film and what is the strategy that they should follow to prevent them. Then, they should record them as a group in a collaborative document and name it "*MyInternet-Task2.2-DangersoftheInternet-GroupX*" [E2.2-A]. That document needs to start with the following question: "Which possible problems/dangers have you recognised?" at least write six and how can people prevent them.

	Finally, the students -as a group- also co-write a document describing their wishful digital world. Use a Google document in the form below and name it "*MyInternet-Task3.2-Internetwewant-GroupX*" [E2.2-B] and include it into the shared space. Once the content is completed, it has to be delivered in the e-portfolio.
Resources	• Adequate device with internet • Padlet dashboard (padlet.com) • Video about Internet use (TheGroceryStore) • A computer/student other useful links: • http://www.webwewant.eu/web/guest/inicio • https://www.saferinternet.org.uk/advice-centre/young-people/resources-11-19s • http://www.childnet.com/resources • http://www.connectsafely.org/great-internet-safety-resources/
Task Workload	1 hour
Activity 3	**Internet... in the World**
Description	Each group will create a Multimedia Internet Dictionary (MID) with Internet terms (personal data, cyberbullying, sexting, etc.). The group will have to search information on the Internet about the terms that they want to include on their MID. Once the MID is finished, each group will share it with the others groups. A short video is assigned to each group. Then, in the format that they want (e.g. presentation, comic, article to a newspaper, etc.) each group will express their self warning to the others groups to the main important things they need to know about the topic of the short video.
Total Activity Workload	**2 hours 30 minutes** task 3.1 - 1 hour 30 minutes task 3.2 - 1 hour
Task 3.1	**Multimedia Internet Dictionary (MID)**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** Very often by surfing the internet people find terms which are referring to use, applications or services. Students read carefully the document that teachers shared with each coordinator named *My_Internet_Activity3*. Create a copy in your shared space of the document and rename it "***MyInternet-Activity3GroupX***" [E3.1]. Make sure that all members of the group and the teacher can see it and modify it. Once the content is completed, it has to be delivered in the e-portfolio.
Resources	• Adequate device with internet
Task Workload	1 hour 30 minutes
Task 3.2	**What can happen?**

Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** Now, each group has their own document "***MyInternet-Activity3GroupX***" [E3.1]. Students read the document carefully. The students in their groups use the content of the videos and create their suggestion to inform and raise awareness their school classmates about the topics mentioned [E3.2-B] Once the content is completed, it has to be delivered in the e-portfolio.
Resources	• Documents: ○ CAS_My_Internet_Activity3 • Adequate device with internet Useful links: • http://www.tomorrowschild.co.uk • http://besmartonline.org.mt • http://www.coface-eu.org • https://www.fragfinn.de • http://www.klicksafe.de • https://saferinternet4kids.gr/ • http://www.webwewant.eu/web/guest/inicio • http://www.pantallasamigas.net/english/ Video about Internet use: • Amazing mind reader reveals his 'gift' • Forever • Promise
Task Workload	1 hour
Activity 4	**Safer Internet Day**
Description	In this activity, students are given the slogan for the Safer Internet Day 2018 "Create, Connect and Share Respect: A better internet starts with you". The groups should discuss, plan, develop, create and present their one's own proposal. In their proposal they should evaluate and use the appropriate tools in relation to the objectives. Their work should incorporate different forms of digital content by knowing image and author rights and different forms of digital content diffusion (ethical and rights perspectives).
Total Activity Workload	**2 hours** task 4.1: 2 hours
Task 4.1	**Safer Internet Day 2018**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** **Introduction:** Safer Internet Day 2018 was celebrated globally on Tuesday 6th February 2018 with the slogan "Create, Connect and Share Respect: A better internet starts with you".

Safer Internet Day is celebrated globally in February each year to promote the safe and positive use of digital technology for children and young people and inspire a national conversation. Globally, Safer Internet Day is celebrated in over a hundred countries, coordinated by the joint Insafe/INHOPE network, with the support of the European Commission, and national Safer Internet Centres across Europe.

The day offers the opportunity to highlight positive uses of technology and to explore the role we all play in helping to create a better and safer online community.

Task:

On the occasion of Safer Internet Day 2018, students are invited to work together to create his/her proposal for a better Internet with the slogan "**Create, Connect and Share Respect: A better internet starts with you**".

The choice of student's creation is done in a cooperation team. Students need to document on a new shared file named "*MyInternet-Activity4GroupX*" their choices as well as justify the use of the tools (why do you choose a tool instead of others).

The choices for the creation can be: [E4.1]

1. Poster
2. Video
3. Presentation
4. Comic book
5. Etc.

Also, students confirm that the material is usable:

- Ethical perspective: no inappropriate content.
- Rights perspectives: proper use and acknowledgment of copyrighted materials.

On the cover of the students' creations must be written the title of the project and the task, the number of the group and the names and surnames of its components.

Reminder: Students need to distribute equally the work each one does to all the members of the group and look at when the activity is to be submitted in order to determine what to do in each of the sessions of the project to have it finished in the fixed date. The work of each member of the group must be examined and debated among all to be able to improve it, if it is necessary. The final product is the success or failure of all the members of the group. What is presented is the

	responsibility of all. Once the creation is completed, it has to be delivered in the e-portfolio.
Resources	• Adequate device with internet
Task Workload	2 hours
Activity 5	**And now what**
Description	This is the last activity of the project and has two tasks. The first one is in group (exposition) and the second one is individually (self reflection).
Total Activity Workload	**2 hours** task 5.1: 1 hour task 5.2: 1 hour
Task 5.1	**Trade Fair**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** All groups will exhibit their creations as if they were a trade fair [E3.2-B]. There will be two shifts of 30 minutes each. In the first, the odd groups are the exponents and the even groups are the public. In the second turn, the role of the groups changes. In both turns, the expositions [E5.1] take place at the same time. What to do to be a exponent: • Be clear in the speech • Control the tone of voice What to do to be a public: • Listen to the speech • Ask questions During the task students assess the peers' production and exposition in the rubric.
Resources	Creation of each group (Poster, Video, Presentation, Comic book, etc.)
Task Workload	1 hour
Task 5.2	**Self-reflection**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** After the Trade Fair is finished, it is good to reflect on the project. Each student will write an essay (400 words - 1 page). The essay needs to answer the following questions taking into account the topics worked throughout the project: • What does he/she have learned in the project? • How did he/she act before the project? • What will he/she change and why? Once the self-reflection is finished upload it to the e-portfolio.
Resources	• Adequate device with internet
Task Workload	1 hour

3.4.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - Groups

Task 1.2 - Shared folder	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
3.2.1.2 Use different safe strategies (cloud, computer memory, external memory, etc.).	Poor use of different safe strategies (cloud, computer memory, external memory, etc.).	Basic use of different safe strategies (cloud, computer memory, external memory, etc.).	Good use of different safe strategies (cloud, computer memory, external memory, etc.).	Excellent use of different safe strategies (cloud, computer memory, external memory, etc.).
3.2.1.3 Coherence of the own strategy with the one adopted by the collaborative environment.	There is no strategy adopted.	The strategy adopted is not coherent.	The strategy adopted is coherent for the group.	The strategy adopted is coherent and clear for everybody (group and teachers).

Task 1.3 - Group's Diary	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.2.1.1 Coherence and viability of the plan.	The student is not able to work and he/she does not follow the teacher's advice.	The student works well. However, the teacher helps him/her with the organization of his/her work to be successful.	The student is well organized and he/she has only minor problems. The teacher has to provide some guidance to help him/her.	The student is very well organized and he/she does the task with no problems. He/she contributes to the group's work according to his/her role.
2.2.1.2 Adequacy of the digital tools for the planning and the development of the work.	The messages do not summarize the work done by the group and/or are not appropriate.	The messages are not always appropriate and some recordings are done quickly and without thinking as a group.	The messages are quite appropriate but more details could be provided to enrich them and describe better the work done by the group.	The messages are always appropriate and the content is a really good summary of the work done by each member of the group.

ACTIVITY 2 - Internet… What we want

Task 2.2 - Problems / Dangers of the Internet	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
1.1.4.1 Awareness of the uses of technology that may affect behaviour and wellbeing in and out of the classroom (e.g. cyberbullying, sexting, addiction, violent content, etc.).	The student does not know the legal aspects linked to online behaviour and he/she does not act according to them.	The student has difficulties in the legal aspects linked to online behaviour and he/she faces difficulties to act according to them.	The student knows the legal aspects linked to online behaviour but he/she faces some difficulties to act according to them.	The student knows the legal aspects linked to online behaviour and he/she acts according to them.
1.1.4.2 Knowledge of the legal aspects linked to online behaviour and action according to them.	The student does not know how to avoid psychological risks nor how to react.	The student knows how to avoid some of the psychological risk but he/she does not know how to react.	The student knows how to avoid some of the psychological risk and he/she knows how to react.	The student knows how to prevent the psychological risk and he/she knows how to react and ask for help if needed.

ACTIVITY 3 - Internet... in the World

Task 3.1 - Multimedia Internet Dictionary (MID)	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.1.3.1 Interaction and exchange of online information with other students through one or more communication systems.	No participation at all and lack of involvement. The student does not take part in the activity and the interaction and the information exchanged is not enough.	Enough participation, needs more involvement. The information is quite basic and there are some problems with the use of communication systems.	Good, quality of participation. The use of communication systems is good. Students need some guidance provided by the teacher.	Very high quality and appropriate participation. The use of communication systems is excellent and autonomous.
2.1.3.3 Adequacy and coherence of the information communicated or shared.	The information provided does not cover all points.	The information is ok, but more research is needed.	The information provided covers all points but there are not too many details or extra information.	The information provided by the student is accurate and extensive.

3.1.1.1 Adequacy and coherence of planning information search to the needs.	Students do not plan information search to match the needs.	Student's planning of information search is poor regarding their needs.	Student's planning of information search is adequate for their needs.	Student's planning information search is excellent for the needs.
3.1.1.2 Viability of the planning in terms of timing, content, tasks, tools, goals, etc.	The planning and its viability is poor (it does not contain any of the following points: timing, content, tasks, tools, goals, etc.).	The planning or its viability is poor (it contains some of the following points: timing, content, tasks, tools, goals, etc.).	The planning and its viability is adequate (it contains some of the following points: timing, content, tasks, tools, goals, etc.).	The planning and its viability is excellent (it contains all of the following points: timing, content, tasks, tools, goals, etc.).
3.1.2.1 Quality and suitability of concepts or keywords' list for the information search.	The student does not use appropriate keywords.	The student uses less appropriate keywords than inappropriate.	The student uses more appropriate keywords than inappropriate.	All keywords are appropriate.
3.1.2.2 Adequacy of different information search tools.	Search is done without any reflection and this is shown in the information presented that is quite vague and not enough.	One search tool is used and some research is done. However, not all information is appropriate or relevant. There is no reference of the tool used.	Only one search tool is used but the information found is relevant. There is no reference of the tool used.	There are a variety of the search tools used that help to compare the information. There is reference to the tools used.
3.1.2.3 Adequacy of search filters.	The student does not use search filters.	The student uses some poor search filters.	The student uses some suitable search filters to find information he/she needs.	The student applies the most suitable/correct filters to find exactly what he/she needs.

Task 3.2 - What can happen?	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.1.5.1 Integration of the elements in different formats into a digital document (text, images, video, etc.) using the	The student does not use elements in different formats.	The student does not use many formats and they are not integrated at all.	The student uses some formats and the majority of the parts are well integrated, but there are some minor errors.	The student uses a huge range of formats and all parts of the presentation are well integrated.

appropriate options of the tool selected.				
4.1.5.2 Adequately format digital content (elements in the document, organization, etc.).	There has not been any reflection in the way the content was organized. The presentation is quite poor.	The presentation should be revised to integrate all the content better. It needs a bit more reflection.	The content has been presented well. The presentation is well organized but there is some room for improvement.	The organization of the content has been carefully thought. The presentation is excellent, all the elements required are present and all the information is relevant and well organized.
4.1.5.3 Quality of the digital content taking into account the aim of the project (composition, message, weight of meanings, clarity, structure coherence, etc.).	The final product does not conform to the established criteria or the objective of the project.	The final product conforms to some established criteria or only partially covers the objective of the project.	The final product conforms to almost all established criteria, and to the objective of the project.	The final product conforms to the established criteria and the objective of the project
4.2.1.1 Originality of the concepts when generating new digital content.	It is not original and it has been done without much care. There is lots of room for improvement.	It is not original but it is quite attractive. More thinking is needed to get a unique product.	There has been some thinking before creation but there is room for improvements. It is original and quite attractive.	There has been a process of previous thinking and design and it is shown in the final product. It is original and very attractive.
4.2.1.2 Originality of the aesthetic.	The student does not take into account a chromatic range, images in the same style, typographies...	The student rarely takes into account the elements related to aesthetic and originality (a chromatic range, images in the same way, typographies...).	The student takes into account almost all of the elements related to aesthetic and originality (a chromatic range, images in the same way, typographies...).	The student takes into account a chromatic range, images in the same way, typographies...
4.2.1.3 Development a personal style.	The student has no personal style. He/she copies creations from others without sense.	The student shows little personal style. He/she has limited knowledge to develop creativity using digital aids.	The student has a personal style. He/she has some knowledge about how to develop creativity using digital aids.	The student has a personal style. He/she is well familiar to develop creativity using digital aids.

4.2.1.4 Adequacy of the content taking into account the goals of the project.	The presentation shows less than 50% of the tasks of the project.	The presentation shows 50% of the tasks of the project.	The presentation shows more than 50% of the tasks of the project and less than 75%.	The presentation shows more than 75% of the tasks of the project.

ACTIVITY 4 - Safer Internet Day

Task 4.1 - Safer Internet Day 2018	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.2.1.1 Originality of the concepts when generating new digital content.	It is not original and it has been done without much care. There is lots of room for improvement.	It is not original but it is quite attractive. More thinking is needed to get a unique product.	There has been some thinking before creation but there is room for improvements. It is original and quite attractive.	There has been a process of previous thinking and design and it is shown in the final product. It is original and very attractive.
4.2.1.2 Originality of the aesthetic.	The student does not take into account a chromatic range, images in the same style, typographies...	The student rarely takes into account the elements related to aesthetic and originality (a chromatic range, images in the same way, typographies...).	The student takes into account almost all of the elements related to aesthetic and originality (a chromatic range, images in the same way, typographies...).	The student takes into account a chromatic range, images in the same way, typographies...
4.2.1.3 Development a personal style.	The student has no personal style. He/she copies creations from others without sense.	The student shows little personal style. He/she has limited knowledge to develop creativity using digital aids.	The student has a personal style. He/she has some knowledge about how to develop creativity using digital aids.	The student has a personal style. He/she is well familiar to develop creativity using digital aids.
4.2.1.4 Adequacy of the content taking into account the goals of the project.	The presentation shows less than 50% of the tasks of the project.	The presentation shows 50% of the tasks of the project.	The presentation shows more than 50% of the tasks of the project and less than 75%.	The presentation shows more than 75% of the tasks of the project.
5.1.1.1 Awareness of the existence of the variety of	The student is not aware of the existence of the variety of technological tools	The student is aware of some of the existence of the variety of technological tools	The student is aware of the existence of the variety of technological tools	The student is aware of the existence of the variety of technological tools

technological tools and approaches and of their continuous evolution.	and approaches. The student has no idea of their continuous evolution.	and approaches but not of its continuous evolution.	and approaches. The student has some idea of their continuous evolution.	and approaches and their continuous evolution.
5.1.1.2 Critical analysis of the adequacy of different tools in relation to a purpose.	The student is unable to make a critical analysis of different tools in relation to a purpose and he/she always uses the same tools.	The student is able to make a critical analysis of different tools in relation to a purpose but he/she always uses the same tools.	The student is able to make a critical analysis of different tools in relation to a purpose. The student always uses the same tools according to his/her needs.	The student is able to make a critical analysis of different tools in relation to a purpose. The student uses different tools according to his/her needs.
5.1.1.3 Knowledge of the appropriate tool for a specific purpose and how to use it.	The student does not know the existence of different tools for a specific purpose nor how to use it.	The student knows the existence of some different tools for a specific purpose but he/she does not know how to use it.	The student knows the existence of some different tools for a specific purpose and he/she does not know how to use it.	The student knows the existence of lots of different tools for a specific purpose and he/se knows how to use it according to his/her needs.

ACTIVITY 5 - And now what?

Task 5.2 - Self-reflection	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
1.1.1.2 Identity management. Level of exposure of student's digital footprint (in terms of risks).	The student does not protect any personal information on the Internet. It is easy to find any private information about the student on the internet.	The student protects some information about his/her person on the Internet. It is easy to find some private information about the student on the Internet.	The student protects almost all the information about his/her person on the Internet. It is not easy to find some private information about the student.	The student does not show any personal information on the Internet. It is difficult to find any private information about the student.
1.1.1.3 Level of coherence between students' self-perception of	There is no level of coherence or it is ineffective. The student is not conscious of his/her	The level of coherence is low. The student is conscious of his/her digital identity and	The level of coherence is high. The student is conscious of his/her digital identity and	The level of coherence is profound. The student is conscious of his/her digital

their digital identity and their digital footprint.	digital identity and his/her footprint and does not know how to manage them.	his/her footprint but faces many problems in managing them.	his/her footprint but faces some problems in managing them.	identity and his/her footprint and manages them perfectly.
1.1.2.1 Quality of the verification of the privacy policies.	The work is not well protected, anyone can access it and edit it which could be very risky.	Students need the teacher's guidance to share and protect their work correctly. There are some sharing mistakes.	The privacy policies are usually correct and the work is usually shared correctly. Minor sharing mistakes could be found.	All the privacy policies are correct and the work is always shared appropriately. There has been a previous reflection about how we want to share our work.
1.1.2.2 Strategy used for guarding against identity theft and scams that try to access their private information online.	The student does not know strategies for guarding against identity theft and scams. Students create, use and share documents without reflecting about privacy. Student is not careful with his/her credentials and he/she usually does not log off from the online places.	The student knows some strategies for guarding against identity theft and scams. However, there are some privacy issues that should be reconsidered. He/she does not take care to log off from online places.	The student knows strategies for guarding against identity theft and scams and usually uses them. Sometimes, he/she does not take care to log off from online places.	The student knows good strategies for guarding against identity theft and scams and always uses them. Always, he/she takes care to log off from online places.
1.1.4.1 Awareness of the uses of technology that may affect behaviour and wellbeing in and out of the classroom (e.g. cyberbullying, sexting, addiction, violent content, etc.).	The student doesn't know the risk and is not aware he/she may be a potential victim.	The student knows the risk but is not aware of being himself/herself a potential victim.	The student knows the risk and is aware of being himself/herself a potential victim.	The student knows the risk and is aware of being himself/herself a potential victim. Student takes care of his/her data, personal image.
1.1.4.3 Avoidance of psychological risks (e.g. cyberbullying, sexting, addiction, violent content,	The student does not know how to avoid psychological risks nor how to react.	The student knows how to avoid some of the psychological risk but he/she does not know how to react.	The student knows how to avoid some of the psychological risk and he/she knows how to react.	The student knows how to prevent the psychological risk and he/she knows how to react and ask for help if needed.

etc.) and how to react.				
1.2.1.1 Knowledge about security strategies and rules to protect personal data.	The student does not know security strategies and rules to protect personal data.	The student knows some security strategies and rules to protect personal data.	The student knows security strategies or rules followed to protect personal data.	The student knows security strategies and rules followed to protect personal data.
1.2.1.2 Use of safety strategies to protect personal data.	The student does not recall security strategies and rules to protect personal data.	The student has difficulties to display security strategies and rules followed to protect personal data.	The student displays security strategies or rules followed to protect personal data.	The student displays security strategies and rules followed to protect personal data.

3.5. CAS: “We welcome our guests”

3.5.1. SCENARIO INTRODUCTION

Author: Rafael Vidal Rodríguez-Sabio (SAN)

"We welcome our guests" is about a project **whose objective** is the creation of a touristic map which will facilitate the visit of exchange students and make it more enjoyable. All the project evidence will be available online.

This project **is designed for students aged** 14-16.

“We welcome our guests" consists of 3 **activities and has a duration of** 8 **hours.** One activity of this CAS needs to collect data from a poll within a week.

The learning methodology (or instructional approach) that will be used for this project, is project-based learning with collaborative groups. Project-based learning is proved to be an effective way for learning and developing learning competencies.

The idea behind projects is to engage students and provide relevance for meaningful and interesting learning. By working on a project, students learn how to take initiative and be responsible, communicate their ideas, build their confidence and manage themselves better. **Students will develop the work collaboratively**, along with some individual work. **The curricular / disciplinary competences involved in the scenario** are communicative competence in the mother language, communicative competence in a foreign language (English / French / German), digital competence, cultural awareness and expression, and learning to learn.

Digital Competence is developed through the design of a touristic attractions map in which students will include the information (text, videos, URL's, opening times,

prices..) that they found on the internet or books, whilst always taking care to respect the authors' rights.

Digital competence is also developed by creating an online poll, disseminating it and acting like community managers. Depending on the school planning, the poll could be open during a week or during the weekend, in order to have as many votes as possible.

The subjects involved are Geography and History, and English/ French /German as a Foreign Language. The mail theme is the knowledge of the city, its history, culture and natural monuments. The relevant vocabulary will be practiced and learned as part of the foreign language subject.

The assessment of "We welcome our guests" will be carried out through formative assessment by the teacher and by each group and with the use of the developed assessment instruments which are rubrics and digital self-evaluation tools. **The evaluation is planned to take place** during or after the tasks.

3.5.2. SCENARIO ACTIVITIES AND TASKS

Activity 0	**Introduction**
Description	In this activity the teacher is going to introduce the CAS. The teacher will explain the key/main information of the Scenario: what the students have been asked to do (a touristic map) and how they will work (in groups and individually).
Total Activity Workload	5 minutes
Task 0.1	**Explanation about the Scenario**
Description	The teacher will explain to the students the main information of the Scenario: -The Scenario is about creating a touristic map to facilitate the visit of exchange or foreign students to our city/town. This map should include the essential information about the our city's most interesting places (e. g. harbour, museums, natural parks, parliament, parks, pier, religious' temple (church, synagogue, mosque, etc.), castles, skyscrapers, theatres, transport's stations….) and events (e.g. concerts, exhibitions, fairs, farmer's market, festivals, funfairs, market, etc.). The subjects involved are ICT, History and English/French/Germany (it depends on educational offerings). -The Scenario has 4 activities (the introduction activity plus 3 other activities), and its duration is 8 hours. Along these activities, the students will search for relevant information about the city's / town's tourist attractions, they will generate a poll to survey other opinions about the places that they consider relevant, then compare

	their results with the poll from other groups and finally create the online touristic map. -Students will work in a collaborative way in groups of 3-4 people each student will adopt a certain role and responsibilities. There will also be some individual activities. -The teacher and the groups will actively assess the Scenario (teacher assessment and self-assessment). The assessment instruments will be rubrics and the assessment will take place either during (with teacher's observation) or after the tasks. **Teaching notes** This task will be done in the **students' mother language.** The group diary needs to be assessed after task 1.1 and at the end of the project. To track the process and progress of each group it is recommended to check the group's diary during the project and provide feedback with suggestions for improvement. [**NO ASSESSMENT**]
Resources	The teacher needs the Scenario information described above.
Task Workload	5 minutes
Activity 1	**Coordinate the work and creation of groups**
Description	In this activity the students will create the work groups. They will assign roles and select their work and record tools and also decide on the way to organise the shared space. To improve the learning to learn competence it must be the students who will create the groups and select the tool for sharing and recording their work.
Total Activity Workload	2 hours Task 1.1: 30 minutes Task 1.2: 1 hour Task 1.3: 30 minutes
Task 1.1	**Roles**
Description	***A) DESCRIPTION:*** Collaborative groups are the work dynamics of the CAS. The idea is for each student to adopt a role with the relevant responsibilities and tasks. In this way, all students will be part of the work dynamic and be conscious and responsible for their work behaviour. In this CAS, students will create work groups and assign roles, including the role of the group coordinator, taking into account the project's objectives and keeping in mind that this is a work and not game project. Taking the project into account, students can modify or adapt their roles' responsibilities. Examples of some roles and responsibilities can be given to the students beforehand (see Roles and responsibilities document).

	The teacher will then have to approve each group's members and their roles and has the option to make changes to groups. Once the groups have been approved, each one – led by its coordinator – will create its first entry in the "group diary", using the template grid from the group's diary document. This will describe the role assignment and each student's responsibilities. Afterwards, the student responsible for sharing the group's work will send this to the teacher using the tool selected (in task 1.2). During the CAS, the teacher will observe student's behaviour in class and digital environments [E1.1]. **Teaching notes:** This task will be done in the **students' mother language.** This task will help the students develop their "learning to learn" competence. because they need to think that the groups are to work and not to play. ***B) ASSESSMENT:*** ***Evidence:*** [E1.1] Student's work behaviour (in class and in digital environments) ***Assessment instrument:*** *Assessment instrument 1.1-A - Teacher assessment* *Assessment instrument 1.1-B - Teacher assessment* ***Indicators:*** *E1.1* PC 2.2.3 (2.2.3.1-2.2.3.2-2.2.3.3)
Resources	-Roles and responsibilities document (online version or printed) -Internet access -Digital devices with access to the Internet (mobile phones, tablets, Chromebooks, PCs…) -Template Group's diary
Task Workload	30 minutes
Task 1.2	**Selection of the tools (to record the work, to work with and the system to share it)**
Description	***A) DESCRIPTION:*** (collaborative) Once the groups are created, each one will: ● select a way to record their work (as a group diary) ● select a tool that they will use during the project to record and share -with the teacher and all the group members - their work progress and process (e.g. e-mail, forum, G Suite…) ● decide the update frequency of the record (after each session, after each activity, daily, weekly…) ● select the tool that they will use to work with ● select the system that they will use to share their work when needed (with the teacher, the members of the group and the other groups) To succeed this, each student will present his/her proposal to the other group members. The group will then discuss the advantages and disadvantages of each

	proposal and come up with the final proposal. The student responsible to share the group's work with the teacher, will send a document describing the final proposal and explaining the related arguments [E1.2]. **Teaching notes:** *It is useful to record the student's work in order to track his/her progress and process and assess it. If the dynamics work in a group it is also useful.* ***(Optional)*** *To make the teacher's work easier and to avoid that each group will use different tools to record their work and different ways to record the work).* The *speaker (or similar role)* of each group will explain to the others groups the decision of his/her group. All the groups will pay attention to the *speakers* and after all the intervention, each group will decide which are the two options they think are the best (arguing its advantages). After the expositions and the possible debate the all the class should decide the two best options. Then, each group will choose which one they will use. After the agreement, the student who has the responsibility to share with the teacher the group's work will send a document explaining their final proposal [E1.2] to the teacher using the tool selected. This task will be done in the **students' mother language.** ***B) ASSESSMENT:*** ***Evidence****:* [E1.2] final proposal ***Assessment instrument:*** Assessment Instrument 1.2 - *Teacher assessment* ***Indicators:*** 2.1.2 [2.1.2.1-2.1.2.2]
Resources	-Internet access -Digital devices with access to the Internet (mobile phones, tablets, Chromebooks, PCs…)
Task Workload	1 hour
Task 1.3	**First entry (self-reflection)**
Description	***A) DESCRIPTION:*** (individually) SELF-REFLECTION Each student - using the selected tool - has to write a first entry with a brief explanation about their choice [E1.3]: ● Which tool did you select to work with? ● Why did you choose this tool? ● What are its advantages/disadvantages? [2.1.2.1] ● Did you agree/disagree with the tool proposed by the other team members? If the answer is positive, explain why. [2.2.3.1-2.2.3.3] ● Did you have to come to an agreement with any member of your group? If the answer is positive, explain why and how. [2.2.3.2-2.2.3.4]

	• After the debate, do you agree with the two options selected? Explain the reasons why or why not. Argue your answer with the tool's advantages or disadvantages. [2.1.2.1] **Teaching notes:** This task should be done in class. Each student has their own "device" (computer, tablet or phone) to write a first entry. If completing this task in class is not possible, it could be done as homework. This task will be done in the **students' mother language.** ***B) ASSESSMENT:*** ***Evidence:*** [E1.3] First individual entry ***Assessment instrument:*** Assessment instrument 1.3 - Teacher assessment ***Indicators:*** 2.1.2 [2.1.2.1-2.1.2.2] 2.2.3 [2.2.3.1-2.2.3.2-2.2.3.3-2.2.3.4]
Resources	-Internet access -Digital devices with access to the Internet (mobile phones, tablets, Chromebooks, PCs…)
Task Workload	30 minutes
Activity 2	**Select the best tourist attractions**
Description	The goal of this activity is to have a list of the most interesting places. This list will be the sum of votes from different online polls. This activity will be done in the **students' mother language.**
Total Activity Workload	3 hours Task 2.1: 30 minutes Task 2.2: 1 hour Task 2.3: 1 hour Task 2.4: 30 minutes
Task 2.1	**Select interesting places**
Description	***A) DESCRIPTION:*** (online collaborative) Each group, led by the coordinator, will discuss and choose which are the places of interest of the town/area where they live. The goal is to have 10 places of interest per group. The students use a forum [2.2.2.1-2.2.2.2] for this task [E2.1]. Each student has to participate minimum 4 times [2.1.3.4] in the forum in 4 different threads. There are two ways to participate (each student needs to participate at least once in both): • to start a new thread for including a new place of interest, or • to reply to the other's threads explaining why he/she agrees or disagrees. [2.1.3.1]

	The coordinator of each group will select the list of the ten most interesting places following three rules: 1. A place of interest is considered as "good" if it has more positive than negative replies . 2. If there are more than twenty "good" places of interest, the coordinator will select the best rated one (positive vs negative votes). 3. If there are less than twenty "good" places of interest, a second round will be held. **Teaching notes:** Preparation before: **teachers will create the forum.** ● Each group has 3-4 students. ● This task can be done in the classroom, however it is better as homework (considering the assessment is focused on digital communication and collaboration). ● A forum is an asynchronous tool. This means that the students don't need to be logged in at the same time. Set as homework, this task could have a two days workload. ● The teachers will create one forum for each group (https://groups.google.com/forum/) and send the link by email/CRISS platform (Help about creating a Google forum could be found at www.wikihow.com/Create-a-Google-Forum). This task will be done in the **students' mother language.** ***B) ASSESSMENT:*** ***Evidence:*** [E2.1] forum ***Assessment instrument:*** Assessment instrument 2.1 - Teacher assessment ***Indicators:*** 2.1.3 [2.1.3.1-2.1.3.2] 2.2.2 [2.2.2.1-2.2.2.2]
Resources	● forum (created by the teacher)
Task Workload	30 minutes if it is in class Up to the teacher if it is set as homework (recommended two days)
Task 2.2	**Polling and dissemination**
Description	***A) DESCRIPTION:*** Once the group has the list of the ten places of interest, each student will use Google forms to create a poll [4.1.5.2-4.1.5.3] [E2.2-A]. The options in the poll should be the top ten monuments proposed by the group, with an additional open question for voters to suggest other places of interest. The students should create a Google forms poll for other students, friends and neighbours and make a rank with the answers. After the students have created their poll, they will need to disseminate it acting as a "community manager". Their work now is to make the poll available to as many people as possible, sharing it on social networks, via email, Whatsapp, etc. Of

	course, focus on using the netiquette rules properly. Students should log their dissemination messages as a story in their e-portfolio (a copy of the message that the students have used to the dissemination: e.g. the e-mail, the social network's message, whatsapp's message). [E2.2-B] **Interesting links:** • Create a Google Form: https://www.google.com/intl/en/forms/about/ • Example of a poll: https://goo.gl/forms/7aDnvXfwjKQw2MsD2 • Netiquette rules: http://www.bbc.co.uk/webwise/guides/about-netiquette **Teaching Notes:** Depending on the school planning, the poll **could be open for a week**, during which time the students only need to spend maximum one hour to disseminate it. The students could create the survey at the end of the week and collect the data over the weekend. The teacher should share a link of the netiquette rules (like Guides about netiquette) and remind the students to be careful about terms, avoid arguments (don't feed the troll), be polite and thank the participants for their help and don't act like a spammer. This task will be done in the **students' mother language.** ***B) ASSESSMENT:*** ***Evidence:*** [E2.2-A] Poll [E2.2-B] record of their dissemination strategy ***Assessment instrument:*** Assessment instrument 2.2-A Assessment instrument 2.2-B - Teacher assessment ***Indicators:*** [E2.2-A] Poll 4.1.5 [4.1.5.2-4.1.5.3] [E2.2-B] record of their dissemination strategy 2.1.1 [2.1.1.1-2.1.1.3]
Resources	-Internet access -Digital devices with access to the Internet (mobile phones, tablets, Chromebooks, PCs…) at least one device per group.
Task Workload	1 hour
Task 2.3	**Adding up the votes**
Description	***A) DESCRIPTION:*** (Individual task) Once the polls are closed, each student will create a graph [E2.3-A] using his/her data to show the results of their poll, share the results with the group and upload it to the e-portfolio. (Collaborative task) The goal is to create a rank [4.1.2.1] of all the places of interest (unifying the results of the polls from all the group members).

To do that each student will copy his/her google spreadsheet to a new one that needs to be created (the group will decide who will be in charge to do that) [4.1.2.2]. Now, all the results of the group are in the same document (which will be shared with the teacher and all the members of the group).

Afterwards, the group will create a new spreadsheet containing all the data and taking into account all the results of each spreadsheet. They will also create a graph (group graph) [4.1.2.3] [E2.3] taking into account all the results.

The teacher will create a Google Drive spreadsheet and share it with the coordinators. One member of each group will have to fill the spreadsheet with the groups' surveys results.

Once all the groups have shared their results, each group will copy the "class' spreadsheet" into the "group's spreadsheet" and create another graph taking into account all the data. The goal is to obtain the percentage of each place of interest, which they can use later [4.1.2.4].

Teaching notes:

The students can view the results by clicking on their Google form, or on Responses (which by default show the Summary responses). Google form shows a graph, and if the student moves the mouse closer to the graphic it then shows the votes.

Help link: https://www.youtube.com/watch?v=PrPjRo-QYBs

Teacher's spreadsheet can be like this example, where in column A the students will write their name, and one row corresponds to one student.

In columns B, C, D, … the students will replace "place of interest 1/2/3" with the real name of the place of interest. They can skip this step if another student has already done this change. More columns could be added if necessary. It could be necessary to use more columns.

	After replacing the name of the place of interest (or choosing the right column) the students will have to fill in the number of votes this place received in the poll. The result could be like this example. A cell can be empty because each poll could either have different places of interest or because people would suggest new ones. This task will be done in the **students' mother language.** ***B) ASSESSMENT:*** ***Evidence:*** [E2.3] Individual Graph - Group Graph - Spreadsheets documents ***Assessment instrument:*** Assessment instrument 2.3 - teacher assessment ***Indicators:*** [E2.3] 4.1.2 [4.1.2.1-4.1.2.2-4.1.2.3-4.1.2.4]
Resources	-Internet access -Digital devices with access to the Internet (mobile phones, tablets, Chromebooks, PCs…), at least one device per group.
Task Workload	1 hour
Task 2.4	**Self-reflection**
Description	***A) DESCRIPTION:*** (individually) In this phase of the scenario we have a list of the most popular places of interest. This is a good opportunity to update the record log polling, using the process recording tool selected in the first activity (forum, Google Drive, Dropbox, CRISS platform…). • How was the poll creating process? • Were there any technical problems? • Did I need help to create it? • How many people responded to your survey? Did the same number of people vote both in your and your colleagues' polls? • Why do you think that you collected more or less data than your colleagues? (To do that the student needs to compare the three graphs - individual, group and class- paying attention to the mean value of each one). • Do you think that if you changed something in your dissemination strategy, that would allow you to collect more data? • Were you a good community manager? Was being a community manager interesting? Did you use proper netiquette rules? Give two examples of how used netiquette: messages, tweets, e-mail… The link to the self-reflection will be shared with the teacher and uploaded into students' e-portfolio. **<u>Teaching notes</u>** This task will be done in the **students' mother language.** ***B) ASSESSMENT:*** ***Evidence:*** [E2.4] Self-reflection

	Assessment instrument: Assessment instrument 2.4 - teacher assessment ***Indicators:*** 5.1.2 [5.1.2.2-5.1.2.3] 5.2.1 [5.2.1.2-5.2.1.3] 5.2.2 [5.2.2.2-5.2.2.3]
Resources	-Internet access -Digital devices with access to the Internet (mobile phones, tablets, Chromebooks, PCs…), at least one device per group.
Task Workload	30 minutes
Activity 3	**Create the map**
Description	A map will be created with Google Maps to add places and practical information (the students will find this information during the activity). This activity will be done in the **students' mother language AND in english or french.**
Total Activity Workload	2 hours and 15 minutes Task 3.1: 1 hour and 30 minutes Task 3.2: 30 minutes Task 3.3: 15 minutes
Task 3.1	**Creation of Interesting Place Digital Card**
Description	***A) DESCRIPTION:*** A) Based on the poll result, the teacher will distribute the most voted monuments, assigning at least one per group. Once the work has been assigned, **each group** has to find relevant information. With the teacher's guidance (preferably in history class), the students have to create an *interesting digital card* [E3.1] for each monument/place. The questions on the digital card will be: ● Which is the current place of interest? Has it changed during history? ● What is the story of the building? ● Why do you recommend that as an interesting place? ● What is its timetable? (Opening and closing times) What is the best time to visit it (i.e.when it is less crowded)? ● How much does it cost to visit? ● Is it possible to buy or book a ticket on the internet? Provide the link for booking/buying online tickets. ● Does it offer student/group discounts? ● Does it offer a guide visit? ● How to get there? (Public transport, private transport…). ● Is this place accessible to everyone? ● In case this place is a Natural Reserve, what kind of care does it need? Is it in a good state of preservation? What is the appropriate visitor's behaviour for Nature Reserve preservation? ● What percentage did this place of interest receive in the survey? The group will create an *Interesting Place Digital Card* using **text** in **a** foreign language (the language of the exchange students) with the information, including **images** and/or links to **videos**. The text, the images and the videos must all include the authors names and the source where the information was found.

	To easily share this information with other peer-reviewers, in the next task the *Interesting Place Digital Card* will be made using the CRISS platform (eportfolio). **Teaching notes** This task will be done in the mother language of the exchange students (*or the second language used in the school*. ***B) ASSESSMENT:*** NO ASSESSMENT ***Evidence:*** [E3.1] Interesting Place Digital Card
Resources	-Internet access -Digital devices with access to the Internet (mobile phones, tablets, Chromebooks, PCs…), at least one device per group.
Task Workload	1 hour and 30 minutes
Task 3.2	**Peer revision**
Description	***A) DESCRIPTION:*** Once the *Interesting Place Digital Card* is ready, the coordinator of the group will send the link to the coordinator of **another group** for a pair-review. The idea of this revision is: "imagine that you are a foreign student and you have to visit this place/monument", with the information included in the *Interesting Place Digital Card*: ● Are you able to understand the history and importance of the monument and plan a visit there? ● Can you book online tickets? [1.3.2.1-1.3.2.2] ● Always remember to check the image rights. Do the images have the references of the authors names and a link to the source? ● Would you recommend a link, image or resource to add as information? Each group checks these items and sends back their review. Students have to express their opinion and reach an agreement with their group colleagues. The decision **will be sent** to the other groups as a feedback. With the peer revision (feedback), if necessary, *the Interesting Place Digital Card* will be improved. **Teaching notes** The teacher can help distribute the work by: ● Assigning the revision of each group. ● Sending an email or message at CRISS platform from one coordinator to the other could be a solution. This task will be done in the **students' mother language.** ***B) ASSESSMENT:*** ***Evidence:*** [E3.1] Interesting Place Digital Card ***Assessment instrument:*** checklist - peer assessment ***Indicators:*** 1.3.2 [1.3.2.1-1.3.2.2]
Resources	-Internet access

	-Digital devices with access to the Internet (mobile phones, tablets, Chromebooks, PCs…), at least one device per group.
Task Workload	30 minutes
Task 3.3	**Add the information into a map**
Description	***A) DESCRIPTION:*** The teacher will share a map (Google Maps can be good) and the coordinators will add the *Interesting Place Digital Card* on it. This is an example of a good map: https://www.google.com/maps/d/viewer?ll=40.76834224664155%2C-73.97918700000002&spn=0.103747%2C0.264187&msa=0&iwloc=0004eff46abd2bc385916&mid=1GXgGBrvisv4jf7gnao6jO8bqWG4&z=12 http://www.kevinandamanda.com/create-a-custom-travel-map-with-google-maps/ All the members of the group will review the coordinator's work. The coordinator will share the link of the map with all the members of his/her group and each member has to agree with the job checking (yes/no): ● Is the place in the right spot on the map? ● Is the text shown properly (font)? ● Is the text shown properly (size)? ● Do the links work? ● Can you see the author's name in each image and is there a link to the original source? ● Is the icon's colour correct? ● Is the icon's shape correct? When the students check that all the information is correct and that it is on the correct place on the map, they will send the OK to their coordinator (in class or by email/CRISS platform). When the coordinator receives the OK from all colleagues he/she will notify the teacher that the group work is done -Using the CRISS platform. **Teaching notes** A help link can be provided ● Google support: https://support.google.com/mymaps/answer/3024925?co=GENIE.Platform%3DDesktop&hl=en ● Example of an example of a map: https://www.google.com/maps/d/viewer?ll=40.76834224664155%2C-73.97918700000002&spn=0.103747%2C0.264187&msa=0&iwloc=0004eff46abd2bc385916&mid=1GXgGBrvisv4jf7gnao6jO8bqWG4&z=12 ● Tutorial step-by-step: http://www.kevinandamanda.com/create-a-custom-travel-map-with-google-maps/ This task will be done in the **students' mother language.** ***B) ASSESSMENT:*** ***Evidence:*** [E3.3] Map

	Assessment instrument: assessment instrument (teacher assessment) ***Indicators:*** 1.3.2 [1.3.2.1-1.3.2.2] 2.1.1 [2.1.1.1-2.1.1.3] 3.1.3 [3.1.3.1-3.1.3.2]
Resources	-Internet access -Digital devices with access to the Internet (mobile phones, tablets, Chromebooks, PCs…)
Task Workload	15 minutes

3.5.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - Coordinate the work and creation of groups

Task 1.1 - Roles	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.2.3.1 Respect and tolerance for others (classmates, peers, teachers, parents…) and their opinions.	The student rarely shows respect to the interventions of others. He/she is not tolerant with different opinions.	The student sometimes does not show respect to the interventions of others and there are discussions.	The students always show respect to the interventions of others.	The student evaluates positive and negative aspects and offers help to solve negative issues.
2.2.3.2 Use of constructive and positive communication.	The attitude does not favor communication. The student does not accept the criticism of others and it is hard to reach points of agreement.	The student does not show special interest in action so to have good communication. He/she is not very receptive to incorporate opinions and suggestions from others.	The student maintains a respectful attitude that favors communication. He/she expresses interest in others' opinions, finds the consensus and shows willing to give in to get it.	The student maintains an attitude that stimulates constructive dialogue and allows for open and sincere communication. He/she listens to criticism, accepts it, analyses and is receptive to incorporate them. Also, he/she takes the initiative when looking for the consensus.
2.2.3.3 Ability to negotiate (resolve conflicts, identify one's own and others' positions, exchange concessions and reach satisfactory agreements, etc.).	Even with the teacher's involvement, students find it very difficult to reach an agreement and they rarely find a common one.	Students discuss a lot and find it difficult to reach an agreement without the teacher's involvement.	Students usually reach an agreement but the teacher may have to take part in the negotiation.	Students are always ready to listen to other opinions, evaluate them and always find a common agreement.

Task 1.2 -	NOVEL	APPRENTICE	ADVANCED	EXPERT

Selection of the tools (to record the work, to work with and the system to share it)	1	2	3	4
2.1.2.1 Knowledge of the advantages and disadvantages of different forms of digital communication and when it is appropriate to use them.	The student does not know advantages / disadvantages of different forms of digital communication either when it is appropriate to use each one.	The student knows vaguely advantages / disadvantages of different forms of digital communication and when it is appropriate to use each one.	The student knows advantages / disadvantages of different forms of digital communication and when it is appropriate to use each one (e.g.: to work at the same time on the same document, to share with mail, etc.).	The student knows advantages / disadvantages of different forms of digital communication and when it is appropriate to use each one taking into account the aim.
2.1.2.2 Adequacy of the different digital tools and platforms to communicate and publish.	The digital tools and platforms are used without any reflection to communicate and publish.	The digital tools and platforms used are not sufficiently appropriate to communicate and publish.	The digital tools and platforms used are appropriate to communicate and publish.	The digital tools and platforms used are highly appropriate to communicate and publish.

Task 1.3 - First entry (self-reflection)	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.1.2.1 Knowledge of the advantages and disadvantages of different forms of digital communication and when it is appropriate to use them.	The student does not know advantages / disadvantages of different forms of digital communication either when it is appropriate to use each one.	The student knows vaguely advantages / disadvantages of different forms of digital communication and when it is appropriate to use each one.	The student knows advantages / disadvantages of different forms of digital communication and when it is appropriate to use each one (e.g.: to work at the same time on the same document, to share with mail, etc.).	The student knows advantages / disadvantages of different forms of digital communication and when it is appropriate to use each one taking into account the aim.
2.1.2.2 Adequacy of the different digital tools and platforms to communicate and publish.	The digital tools and platforms are used without any reflection to communicate and publish.	The digital tools and platforms used are not sufficiently appropriate to communicate and publish.	The digital tools and platforms used are appropriate to communicate and publish.	The digital tools and platforms used are highly appropriate to communicate and publish.

2.2.3.1 Respect and tolerance for others (classmates, peers, teachers, parents…) and their opinions.	The student rarely shows respect to the interventions of others. He/she is not tolerant with different opinions.	The student sometimes does not show respect to the interventions of others and there are discussions.	The students always show respect to the interventions of others.	The student evaluates positive and negative aspects and offers help to solve negative issues.
2.2.3.2 Use of constructive and positive communication.	The attitude does not favor communication. The student does not accept the criticism of others and it is hard to reach points of agreement.	The student does not show special interest in action so to have good communication. He/she is not very receptive to incorporate opinions and suggestions from others.	The student maintains a respectful attitude that favors communication. He/she expresses interest in others' opinions, finds the consensus and shows willing to give in to get it.	The student maintains an attitude that stimulates constructive dialogue and allows for open and sincere communication. He/she listens to criticism, accepts it, analyses and is receptive to incorporate them. Also, he/she takes the initiative when looking for the consensus.
2.2.3.3 Ability to negotiate (resolve conflicts, identify one's own and others' positions, exchange concessions and reach satisfactory agreements, etc.).	Even with the teacher's involvement, students find it very difficult to reach an agreement and they rarely find a common one.	Students discuss a lot and find it difficult to reach an agreement without the teacher's involvement.	Students usually reach an agreement but the teacher may have to take part in the negotiation.	Students are always ready to listen to other opinions, evaluate them and always find a common agreement.
2.2.3.4 Equitable and efficient communication.	The student does not express his/her opinions effectively and does not respect the turn of the others.	The student does not express his/her opinions effectively but respects the turn of the others.	The student expresses his/her opinions effectively and respects the turn of the others.	The student expresses his/her opinions effectively and respects the turn of the others, and helps the group to act in a similar way.

ACTIVITY 2 - Select the best tourist attractions

Task 2.1 - Select interesting places	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.1.3.1 Interaction and exchange of online information with other students through one or more communication systems.	No participation at all and lack of involvement. The student does not take part in the activity and the interaction and the information exchanged is not enough.	Enough participation, needs more involvement. The information is quite basic and there are some problems with the use of communication systems.	Good, quality of participation. The use of communication systems is good. Students need some guidance provided by the teacher.	Very high quality and appropriate participation. The use of communication systems is excellent and autonomous.
2.1.3.2 Suitability of the tool used for communicating and sharing information.	The tools used are not suitable for the objectives of communication and sharing of information.	The tools used are not suitable enough for the objectives of communication and sharing of information	The tools used are acceptable for the objectives of communication and sharing of information, but they can be changed by better ones.	The tools used are suitable and optimum for the objectives of communication and sharing of information.
2.2.2.1 Frequency of interaction in virtual environment(s).	The student does not take part in the task or if it does his/her answers are not appropriate.	The student interacts at least one time.	The student interacts more than once. The interactions are appropriate.	The student interacts more than 2 times. The interactions are valuable and reflected.
2.2.2.2 Quality of interventions: argumentation of one's own interventions and consideration of the interventions of the group.	The interventions are neither argued nor coherent. No new content provided.	To some extent the interventions are argued. No new content provided.	The interventions are argued, but there is not always new content added.	The interventions are argued, coherent and new content added.

Task 2.2 - Polling and dissemination	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.1.5.2 Adequately format digital content (elements in the document, organization, etc.).	There has not been any reflection in the way the content was organized. The presentation is quite poor.	The presentation should be revised to integrate all the content better. It needs a bit more reflection.	The content has been presented well. The presentation is well organized but there is some room for improvement.	The organization of the content has been carefully thought. The presentation is excellent, all the elements required are present and all the information is relevant and well

				organized.
4.1.5.3 Quality of the digital content taking into account the aim of the project (composition, message, weight of meanings, clarity, structure coherence, etc.).	The final product does not conform to the established criteria or the objective of the project.	The final product conforms to some established criteria or only partially covers the objective of the project.	The final product conforms to almost all established criteria, and to the objective of the project.	The final product conforms to the established criteria and the objective of the project
2.1.1.1 Use of the appropriate language for a specific audience (e.g. age, professional role, cultural sensibilities, relationship, etc.).	Language is not appropriate for the topic or audience at all. There is not a proper summary of the work done by the group.	Language is quite informal and not always appropriate for the topic and audience. The summary of the work done is quite vague.	Language is usually appropriate for the topic and audience. The summary of the work done is adequate.	Language is appropriate for the topic and audience. Language enhances the effectiveness of a presentation, it is vivid, imaginative, and expressive. The summary of the work done is very accurate and well redacted.
2.1.1.3 Adequate use of netiquette.	The student has an unsuitable use of netiquette (e.g. does not show respect for the audience/recipient using a disrespectful language, has a bad online behaviour, uses capital letters without paying attention, does not share his/her knowledge, does not respect others' privacy, does not acknowledge the mistakes from others, has no empathy, etc.).	The student has an acceptable use of netiquette. Student does some of the examples: shows respect for the audience/recipient using a respectful language, has a good online behaviour, avoids using capital letters -only when it is needed-, shares his/her knowledge, respects the others' privacy, knowledges the mistakes from others, has empathy, etc.	The student has an adequate use of netiquette. Student does most of the examples: shows respect to the audience/recipient using a respectful language, has a good online behaviour, avoids using capital letters -only when it is needed-, shares his/her knowledge, respects others' privacy, knowledges the mistakes from others, has empathy, etc.	The student has an adequate, fair and defectless use of netiquette. Student does all of the examples: shows respect for the audience/recipient using a respectful language, has a good online behaviour, avoids using capital letters -only when it is needed-, shares his/her knowledge, respects others' privacy, knowledges the mistakes from others, has empathy, etc.

Task 2.3 - Adding up the votes	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
4.1.2.1 Appropriate use of spreadsheet to format and calculate data.	The student does not use formulas.	The student only uses one formula (sum, subtraction or link boxes).	The student uses two different formulas (sum, subtraction and/or link boxes).	The student uses all different formulas (sum, subtraction and link boxes) and more options.
4.1.2.2 Appropriate use of one or more sheets to manage data and graphs.	Most calculated data are wrong and references to the data cells are not used.	The calculated data are right but references to the data cells are not used.	Most of the calculated data are right and are calculated by making references to the data cells.	The calculated data are right and are calculated by making references to the data cells.
4.1.2.3 Quality of the graphs (type, legend, colours, title, etc.).	The graph does not present the information requested, or it is not in the appropriate format.	The graph presents the requested information only on one axis. It has errors in the title, legends, units.	The graph presents the requested information. It has small errors in the title, legends, units.	The graph presents the requested information which is correct in terms of title, legend, units.
4.1.2.4 Relevance of the data and graphs selected according to objectives.	Data is irrelevant and does not answer the questions of the project. There is no connection among the resources.	Some data is not relevant or coherent. More information is required to be able to understand the content.	The data is related and coherent to the project but a more thoughtful selection of criteria is needed. Some data is not well connected or explained.	The data is carefully selected and it is relevant to the project. There has been some thinking before and it is reflected in the work.

Task 2.4 - Self-reflection	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
5.1.2.2 Detection of one's own knowledge gaps when using digital technology.	The student is not aware of one's own knowledge gaps.	The student needs help to reflect and point out one's own knowledge gaps.	The student is able to reflect and point out the gaps with the teacher's advice.	The student is able to reflect and point out the gaps to be improved.
5.1.2.3 Use of different strategies to find new sources of knowledge.	The student uses barely one single way to find new sources of knowledge.	The student uses at least one strategy to find new sources of knowledge.	The student uses more than one strategy to find new sources of knowledge.	The student uses proactively more than one strategy to find new sources of knowledge.
5.2.1.2 Identification of the technical	The student is not able to identify the technical problem	The student is able to identify the technical problem	The student is able to identify the technical problem	The student is able to identify the technical problem

problems on their own or asking for help.	despite the support provided by the teacher.	with many difficulties and is fully supported by the teacher.	asking for some external support.	autonomously without any external support.
5.2.1.3 Adoption of a positive attitude to detect technical problems.	The attitude adopted in detecting technical problems is negative or conflicting.	The attitude adopted is passive and the student does not seem interested in detecting technical problems.	The attitude adopted is quite positive and the student seems willing to detect technical problems.	The attitude adopted is positive and the student considers the technical problems as a challenge.
5.2.2.2 Adoption of a solution by oneself, or asking for help.	The student is not able to adopt a solution despite the support provided by the teacher.	The student is able to adopt a solution with many difficulties and fully supported by the teacher.	The student is able to adopt a solution asking for some external support.	The student is able to adopt a solution without any external support.
5.2.2.3 Adoption of a positive attitude to solve technical problems.	The student adopts a negative or conflicting attitude in solving the technical problem.	The student adopts a passive attitude and does not seem interested in solving the technical problem.	The student adopts a positive attitude quietly and is willing to solve the technical problem.	The student adopts a positive attitude and considers the technical problems as a challenge.

ACTIVITY 3 - Create the map

Task 3.2 - Creation of Interesting Place Digital Card	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.3.2.1 Adequacy of the use of digital technologies to match personal needs.	The student needs help to find how to buy tickets for the monument/museum.	The student is able to find how to buy tickets online.	The student is able to find how to buy tickets online and check if there are special prices for students/groups.	The student is able to find how to buy online tickets and can compare webs with/without fees.
1.3.2.2 Autonomous use of digital technologies.	The student is not able to use digital technologies without the help of somebody.	The student is able to use digital technologies with only the help of the teacher or by imitating the colleagues.	The student is able to use digital technologies with some help from the teacher/colleagues.	The student is able to use digital technologies autonomously.

Task 3.3 - Peer revision	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
1.2.3.1 Knowledge about the legal and ethical dimensions of respecting others' work.	The student does not know the different Creative Commons licences and does not include any in their work.	The students have difficulties in differentiating the different types of licences and the teacher has to guide them to create an appropriate one for their work.	The students know the different Creative Commons licences but he/she needs the teacher's guidance to create a licence for their work.	The students know the different Creative Commons license and apply this knowledge to his/her work perfectly well.
1.2.3.2 Ethical and responsible behavior respecting the creators and users of others' work.	The student does not care about creative commons licences and uses the resources he/she finds without checking the licence that he/she has.	The student usually uses resources for which he/she has a licence. However, some of the resources have no creative commons licence and/or there are no references to them.	The student is very careful and respectful and only uses the resources for which he/she has a licence. However, he/she forgets to cite the resources that he/she uses.	The student is very careful and respectful and only uses the resources for which he/she has a licence. He/she references the resources correctly.
1.3.2.1 Adequacy of the use of digital technologies to match personal needs.	The student needs help to find how to buy tickets for the monument/museum.	The student is able to find how to buy tickets online.	The student is able to find how to buy tickets online and check if there are special prices for students/groups.	The student is able to find how to buy online tickets and can compare webs with/without fees.
1.3.2.2 Autonomous use of digital technologies.	The student is not able to use digital technologies without the help of somebody.	The student is able to use digital technologies with only the help of the teacher or by imitating the colleagues.	The student is able to use digital technologies with some help from the teacher/colleagues.	The student is able to use digital technologies autonomously.
2.1.1.1 Use of the appropriate language for a specific audience (e.g. age, professional role, cultural sensibilities, relationship, etc.).	Language is not appropriate for the topic or audience at all. There is not a proper summary of the work done by the group.	Language is quite informal and not always appropriate for the topic and audience. The summary of the work done is quite vague.	Language is usually appropriate for the topic and audience. The summary of the work done is adequate.	Language is appropriate for the topic and audience. Language enhances the effectiveness of a presentation, it is vivid, imaginative, and expressive. The summary of the work done is very accurate and well redacted.

2.1.1.3 Adequate use of netiquette.	The student has an unsuitable use of netiquette (e.g. does not show respect for the audience/recipient using a disrespectful language, has a bad online behaviour, uses capital letters without paying attention, does not share his/her knowledge, does not respect others' privacy, does not acknowledge the mistakes from others, has no empathy, etc.).	The student has an acceptable use of netiquette. Student does some of the examples: shows respect for the audience/recipient using a respectful language, has a good online behaviour, avoids using capital letters -only when it is needed-, shares his/her knowledge, respects the others' privacy, knowledges the mistakes from others, has empathy, etc.	The student has an adequate use of netiquette. Student does most of the examples: shows respect to the audience/recipient using a respectful language, has a good online behaviour, avoids using capital letters -only when it is needed-, shares his/her knowledge, respects others' privacy, knowledges the mistakes from others, has empathy, etc.	The student has an adequate, fair and defectless use of netiquette. Student does all of the examples: shows respect for the audience/recipient using a respectful language, has a good online behaviour, avoids using capital letters -only when it is needed-, shares his/her knowledge, respects others' privacy, knowledges the mistakes from others, has empathy, etc.
3.1.3.1 Quality, reliability, comprehension and adequacy of the information found.	Do not find the information, or it is not adequate or has no quality.	Do not find most of the information. The information found is adequate or has quality.	Find almost all the required information. The information found is adequate and has quality.	Find all the required information. The information found is relevant, adequate and has quality.
3.1.3.2 Use of different sources searching the same information.	The student does not use any source on the Internet.	The student uses 1 source on the Internet to search for the same information.	The student uses 2 and 3 sources on the Internet to search for the same information.	The student uses more than 3 sources on the Internet to search for the same information.

3.6. CAS: "Publish an electronic school newspaper"

3.6.1. SCENARIO INTRODUCTION

Author: Ross Campbell (HEA)

"Publish an electronic school newspaper" is a language practice project in which students plan, gather material, write articles and stories, illustrate with sound, video clips, drawings and photos, then publish to inform their school's audience (parents, peers, nearby schools). Multiple objectives involve language comprehension and production as well as digital searching, communicating and editing.

This project/activity **is designed for students at** 14-16 **years old**.

"Publish an electronic school newspaper**" consists of** 3 **activities and has a duration of** 9 **hours**.

The instructional approaches that will be used are *open-source learning* *and* ***peer learning*****.** *Active browsing for instructions (open source) is combined with sharing of experiences (peer learning) in an environment where contacting the teacher is available although a step-by-step instruction is not required*. **Students will develop the work combining** collaborative and individual situations following the introduction of the teacher.

The curricular/disciplinary competences involved in the scenario are Language reception, production and interaction.

The Digital Competence is developed through active participation in planning, writing, editing and publishing a school newspaper.

The subjects involved are English (or any high-level language (L1) **and the main themes are** current events, local news, target-language area

The assessment is carried out through a *teacher assessment.*

The assessment instruments developed are rubrics.

The evaluation is generally planned at the end of the activities even if feedback can be optionally provided also during each activity.

3.6.2. SCENARIO ACTIVITIES AND TASKS

Activity 0	**CAS Introduction**
Description	Teacher introduces the CAS, its main ideas and goals.
Total Activity Workload	1h
Task 0.1	**Explanation about the Scenario**
Description	The teacher explained the goal of the CAS and how this goal (create a newspaper) will be achieved. The teacher should inform the students about the 'technical problems diary' and explain that they are expected to note down individually all the technical problems encountered in the CAS and the solution found. The teacher should also take the opportunity to discuss the ethical and legal behaviour expected regarding the material that will be created and submitted (copyright, licences, citations, etc.) and provide some information on this issue.
Resources	- resources ad hoc can be used to deal with the topic of ethical and legal behaviour - 'technical problems diary'
Task Workload	1h
Activity 1	**Make a newspaper project plan**
Description	**Description:** Students will brainstorm the main goals of the newspaper and plan the steps involved: content, format, deadlines, etc. An editing group with special responsibilities will be also established. After dividing in groups, students will create a work plan to design and publish the newspaper.
Total Activity Workload	2h
Task 1.1	**Brainstorm and agree on goals and content** (Collaborative)
Description	The newspaper's goals and characteristics need to be discussed and brainstormed with the whole class. The following topics may be tackled: - the **Content:** what should the newspaper cover, both in topic and in length?

	- the **format:** Layout, fonts, color schemes, existing and new logotypes. - the **deadlines**, - the members of the **editing group** (the editing group composed of 2-4 students will be in charge to review and publish the newspaper. The teacher is recommended to be included as advisor). Conclusions elaborated will be noted in a document. Editing group will be in charge to save it in a shared space respecting secure backup procedures (every submission should be saved in at least two places: on the collaborative shared space as well as on the submitting student's own drive, computer, memory stick, etc.).
Resources	- *computer with internet connection* - *a school-provided collaborative solution, such as Google Docs, OneDrive, SharePoint, Teams,* Shared *Dropbox* etc. where a logical file structure for group work can be housed.
Task Workload	1 hour
Task 1.2	**Set up groups and make a work plan** (Collaborative)
Description	Students will be divided into groups. Based on previously agreed goals, students have to create a project plan with the members of the group using a shared table or chart (e.g. Gantt) (EV1.2A) with the tasks of the different members and start and end dates for each project step, choosing the appropriate tool to perform this task. The plan should include also the option to categorize the different tasks with labels as e.g. 'to do', 'in progress', 'done', etc. The plan needs to be saved in the shared space. The plan will be updated accordingly after relevant tasks. Each group will also save its own 'technical problems diary' in the shared space and add information after relevant tasks.
Resources	- computer with internet connection - spreadsheet or scheduling software - technical problems diary
Task Workload	1 hours
Activity 2	**Produce newspaper content** (collaborative)
Description	Create text and illustrations for the e-newspaper.
Total Activity Workload	4 hours
Task 2.1	**Create textual content**
Description	Each group will produce an article or story according to the goals of the project. Format and topic should respect what has been agreed at the beginning. Upload the content to the established digital tool (e.g. Portabily) with secure backup procedures. The teacher will check the secure backup procedures and the organization of the tools and resources used by the student, noting down relevant information in an Observation Grid (EV2.1).

	Update project plan and/or calendar when text is submitted and the 'technical problems diary' if needed.
Resources	- text editing program - layout processing program (e.g. Portably) - spreadsheet or scheduling software - 'technical problems diary'
Task Workload	2 hours
Task 2.2	**Illustrate newspaper content** (Collaborative)
Description	This task is to create visual content for the newspaper (sound content is also an option) in collaboration with the group. Using appropriate tools, each group will illustrate the newspaper according to the plan (task 1.1). Drawings can be created electronically or by hand and then scanned. Photographs, sound and/or video clips should be created digitally in the format according to the plan or retrieved in the CRISS libraries. Upload the image/sound files to the established digital tool (Portabily) organizing all the material collected in a proper way. Submission needs to be done with the secure backup procedures previously established (using different tools/devices to save the copy). The teacher will observe students' strategies to backup data and the organization of tools, devices and resources updating the related Observation Grid (EV2.1). Update the Project Plan and/or calendar when visual content is submitted (EV1.2B). The format quality of the text and the tables of the Project Plan and the relevance of the information according to the objectives will be evaluated.
Resources	- image-editing program; - layout processing program (previously defined) - spreadsheet or scheduling software - technical problems diary
Task Workload	2 hours
Activity 3	**Layout, review and publication of newspaper content**
Description	Before publishing, the editing group must review the materials and ensure the suitability of the content. This involves following the goals established and the design of the working plan, suggesting and making changes such as in the length and the format, as well as following ethical and rights aspects of publishing.
Total Activity Workload	2 hours
Task 3.1	**Content approval and layout** (Collaborative)
Description	This task involves both the editing group and all the students who created articles and illustrations. The editors (including the teacher as an advisor) use a layout software (e.g. Portably) to lay out the front page of the newspaper and check that text and illustrations fit the plan.

	Each Headline of the front page can be linked to the different articles created by each group. Images for the front page can be retrieved by CRISS Libraries. The Editing group with the teacher needs to check also that material (photos and textual information) (EV3.1) is usable at two levels: 1.Ethical perspective: Show that there is no inappropriate content, according to school and ISP policies. 2. Rights perspectives: ensure proper use and acknowledgment of copyrighted materials and stated copyright claims for students' own materials. If the editorial group identifies articles that need to be improved, adapted or redesigned, students make necessary changes to their texts and/or illustrations. Finally the students need to define the licence and the set of conditions they wish to apply to their newspaper. The final product elaborated by each group and modified according to the indications of the editors will be evaluated (EV3.1). The whole process to create the content and change it to meet the layout and design needs also involves discovering and solving technical difficulties. All the problems will be reported in the 'technical problems diary'.
Resources	- layout processing program (Portabily, Pages, etc.) to create the final layout. - 'technical problems diary'
Task Workload	1,30 minutes
Task 3.2	**Online publishing** (Collaborative)
Description	After approval of layout and content, the newspaper should be published in an appropriate forum for the school, such as the school's website, intranet or social network platform. Technical difficulties or problems that arise during the CAS as well as how they have been solved by oneself or with help will be added to the 'technical problems diary' (EV3.2) and the document will be finalized.
Resources	- technical problems diary
Task Workload	0,30 minutes

3.6.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - Make a newspaper project plan

Task 1.2 - Set up groups and make a work plan	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
2.2.1.1 Coherence and viability of the plan	The student is not able to work and he/she does not follow the teacher's advice.	The student works well. However, the teacher helps him/her with the organization of his/her work to be successful.	The student is well organized and he/she has only minor problems. The teacher has to provide some guidance to help him/her.	The student is very well organized and he/she does the task with no problems. He/she contributes to the group's work according to his/her role.
2.2.1.2 Adequacy of the digital tools for the planning and the development of the work	The messages do not summarize the work done by the group and/or are not appropriate.	The messages are not always appropriate and some recordings are done quickly and without thinking as a group.	The messages are quite appropriate but more details could be provided to enrich them and describe better the work done by the group.	The messages are always appropriate and the content is a really good summary of the work done by each member of the group.

ACTIVITY 2 - Produce newspaper content

Task 2.2 - Illustrate newspaper content	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
3.2.1.1 Use of a coherent, clear and efficient system to manage, store or retrieve information.	No organisational skills. Products are not organised and are usually delivered late.	Basic organisational skills. Products need to be better organised and delivered on time.	Good organisational skills. Products are usually well organised. Well productive in accomplishing assignments.	Really good organisational skills. Products are really well organised. Highly productive in accomplishing assignments.
3.2.1.2 Use different safe strategies (cloud, computer memory, external memory, etc.).	Poor use of different safe strategies (cloud, computer memory, external memory, etc.).	Basic use of different safe strategies (cloud, computer memory, external memory, etc.).	Good use of different safe strategies (cloud, computer memory, external memory, etc.).	Excellent use of different safe strategies (cloud, computer memory, external memory, etc.).
3.2.2.2 Efficient and coherent	Only some required documents are uploaded in the	Most of the required documents are uploaded in the	All the required documents are uploaded in the	All the required documents are uploaded in the

management of tools and devices.	corresponding folder. Only some required documents are also saved in at least one other way (their own computer, a pen-drive, etc.).	corresponding folder. Only some required documents are also saved in at least one other way (their own computer, a pen-drive, etc.).	corresponding folder. Most of the required documents are also saved in at least one way (their own computer, a pen-drive, etc.).	corresponding folder. The required documents are also saved in at least one other way (their own computer, a pen-drive, etc.).
3.2.2.3 Efficient and coherent management of the resources.	The resources are hardly used, many resources are missing or not visible.	The resources are managed at a basic level. There is a need for more efficient and coherent use, many important tasks are not visible and accessory aspects have an important place.	The resources are usually well managed, but the student can make more out of them, some resources have not the presence required for their importance.	All resources are well managed and the student makes the most out of them.
4.1.1.3 Format quality of the text and the tables (wording, fonts, size, etc.).	There is no format quality in the digital content.	The format quality is deficient in the digital content.	The format quality is correct and almost followed in all the digital content.	The format quality is excellent and followed in all the digital content.
4.1.1.4 Relevance of the information according to the objectives.	Information is irrelevant and does not answer the questions of the project. There is no connection among the resources.	Some information is not relevant or coherent. More information is required to be able to understand the content.	The information is related and coherent to the project but a more thoughtful selection criteria are needed. Some content is not well connected or explained.	The information is carefully selected and it is relevant to the project. There has been some thinking before and it is reflected in the work.

ACTIVITY 3 - Layout, review and publication of newspaper content

Task 3.1 - Content approval and layout	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
1.2.3.1 Knowledge about the legal and ethical	The student does not know the different Creative Commons licences	The students have difficulties in differentiating the different types of	The students know the different Creative Commons licences but he/she	The students know the different Creative Commons license and apply

dimensions of respecting others' work	and does not include any in their work.	licences and the teacher has to guide them to create an appropriate one for their work.	needs the teacher's guidance to create a licence for their work.	this knowledge to his/her work perfectly well.
1.2.3.2 Ethical and responsible behavior respecting the creators and users of others' work.	The student does not care about creative commons licences and uses the resources he/she finds without checking the licence that he/she has.	The student usually uses resources for which he/she has a licence. However, some of the resources have no creative commons licence and/or there are no references to them.	The student is very careful and respectful and only uses the resources for which he/she has a licence. However, he/she forgets to cite the resources that he/she uses.	The student is very careful and respectful and only uses the resources for which he/she has a licence. He/she references the resources correctly.
4.1.3.3 Content quality of the final product.	The quality of the final product is quite poor.	The quality of the final product is acceptable, but a little more work could be done.	The quality of the final product is quite good.	The quality of the final product is very high quality. The products of all the tasks are present.
4.1.3.4 Technical quality of the images, sounds and videos.	The technical quality of the images, sounds and videos is poor or deficient.	The technical quality of the images, sounds and videos is acceptable, but a little more work could be done.	The technical quality of the images, sounds and videos is good.	Images, sounds and videos have outstanding technical quality.
4.1.3.5 Relevance of the product according to the objectives.	The product is not appropriate for the purpose of the project. Many final task products are missing.	The product could be more adequate for the purpose of the project. Not all the products required are present. It could be improved.	The product is adequate for the purpose of the project. Some minor details need to be corrected.	The product is very adequate for the purpose of the project. It is a perfect compilation of the work done.

Task 3.2 - Online publishing	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
5.2.2.1 Search for possible causes of a problem once it's detected.	The student is not able to search for the possible cause of the problem.	The student searches for possible causes of the problem but the strategies used are not relevant.	The student searches for possible causes of the problem using reasonable and consistent strategies.	The student searches for possible causes of the problem using effective and innovative strategies.
5.2.2.2 Adoption of a solution by	The student is not able to adopt a solution despite the	The student is able to adopt a solution with many	The student is able to adopt a solution asking for some	The student is able to adopt a solution without any

oneself, or asking for help.	support provided by the teacher.	difficulties and fully supported by the teacher.	external support.	external support.

3.7. CAS: “Reach 20 First”

3.7.1. SCENARIO INTRODUCTION

Author: Georgios Panselinas (RDE)

"Reach 20 first” is a problem solving activity whose main objective is computational thinking. Students learn the different characteristics of computational thinking and apply computational thinking processes to different situations including a specific programming language in order to teach computers how to beat everyone in the game “Reach 20 first”.

This activity is designed for **students of 14-16 years old**.

"Reach 20 first" consists of 2 activities and has a duration of 2 hour and 25 minutes.

The **learning methodology** (or instructional approach) that will be used in this activity is Gamification and Problem Solving and will be used because gamification and game design are the proper context for learning computational thinking as computer games are very familiar to children. Children learn to play games at a very young age by learning the rules and the goal of the game. Learning the rules of a game is the first step of game design. Therefore, in this instructional approach students will play the game, then will analyse the game (decomposition, pattern recognition, abstraction,) and finally they will design and develop the game (algorithm design, debugging), thus, solving the problem of making the computer unbeatable at the “Reach 20 first” game.

Students will develop the **work in a group collaboratively but also carry out some individual tasks**.

The curricular / disciplinary competences involved in the scenario are mathematical competence and digital competence as problem solving strategies are a common goal in both mathematics and computational thinking

The Digital Competence is developed through students analysing a game (decomposition, pattern recognition, abstraction) and designing and developing the game (algorithm design, debugging), thus, learning computational thinking.

The **subjects involved** are ICT/Computer Science and Mathematics and the main themes are:

- Problem solving strategies
- Algorithms
- Programming
- Programmer
- Programming language
- Computational Thinking
- Intelligence and Computers

The **assessment** of "Reach 20 first" is carried out through teacher assessment and will be used because it is the more valid and reliable way to check out the performance criterion 5.3.2. The assessment instruments developed are CAS_Reach 20 first_INS1_Rubric1 and CAS_Reach 20 first_INS2_Rubric2. The evaluation is planned during and after the activities.

References

- McOwan, P. & Curzon P. The intelligent piece of paper. Queen Mary University of London.
- http://www.cs4fn.org/teachers/activities/intelligentpaper/intelligentpaper.pdf
- Panselinas G. & Tiliannakis, E. (2017, May). Intelligence, Games, Algorithms and Computers: Making the computer always win at "Reach 20 first" game.

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- http://pdkap.sch.gr/2017/wp-content/uploads/2017/05/pekap2017-final43.pdf (in Greek)

3.7.2. SCENARIO ACTIVITIES AND TASKS

Activity 0	**Introduction**
Description	In this activity, the teacher introduces the CAS. The teacher explains the key/main information of the Scenario: what the goals of the scenario are, what students and teachers do, how they work (in groups and individually), where (computer lab or class) and what students creations are assessed by the teacher.
Total Activity Workload	5 minutes
Task 0.1	**Explanation about the Scenario**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** The teacher explains to the students the main information of the Scenario: - THE GOAL: The main aim of the Scenario is for students to learn and apply computational thinking processes to different situations, including a specific programming language, to solve the problem of making anyone (including a computer) beat everyone else in the game “Reach 20 first". - HOW: The Scenario has 3 activities (the introduction activity plus 2 other activities), and its duration is 2 hours and 25 minutes. During these activities, the students first play a computer version of the game "Reach 20 first", then play at least three (3) games against an "intelligent" piece of paper in a board and finally debug and remix the computer program to make a computer version of the game that beats everyone. Students will develop the work in pairs collaboratively but also carry out some individual tasks. -WHERE: The teacher and the students work mostly in the computer lab but some activities can be also performed in class. -WHAT IS ASSESSED: Students create three (3) pieces of evidence for teacher assessment. First, students create at least three representations of the game played on board (three ‘ladders” of 20 steps along with the moves of both players). Second, students produce an algorithm written in their language in a piece of paper or another medium. And third, students debug and remix a given computer program. -The teacher can also find attached some rubrics that can be used to assess this CAS.

Resources	The teacher needs the information described above about the Scenario.
Task Workload	5 minutes
Activity 1	**Playing the "Reach 20 first!" game: intelligence in paper**
Description	In this activity we are going to introduce the topic of intelligence in computers through playing a game and teaching anyone to win at that game. Students are introduced to computational thinking through abstraction, automation and analysis without using computers first. In Activity 2 they consider abstraction, automation and analysis using computers. Before starting the Task 1.2 the teacher will provide each student with a copy of the evaluation rubric with the information of what it is that they are expected to do in this Task and the minimum requirements to pass it. The rubrics will always be available in the project folder that the teacher will have previously created in the CRISS platform.
Total Activity Workload	**1 hour 40 minutes** task 1.1 - 60 minutes task 1.2 - 40 minutes
Task 1.1	**Playing the "Reach 20 First!" game: Intelligence in paper**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** The teacher starts the task by asking questions and inviting answers from students. · Do you play computer games? · In those games, do you sometimes play against the computer? · Have you ever beaten the computer? · In those games in which you have played against the computer, does the computer play intelligently? · In those games, can we say that the computer presents some sort of intelligence behaviour? · If the answer is 'yes' to the above question, what do you think makes the computer present some sort of intelligent behaviour? Then, the teacher announces that in their computer lab there is a game called "Reach 20 first" and he/she challenges them to play some games against the computer. He/She explains that the game is played with one pawn, starting from step 1, and each of the two players, on their turn, move the pawn one or two steps forward. The one that reaches the step 20 first is the winner (Figure 1).

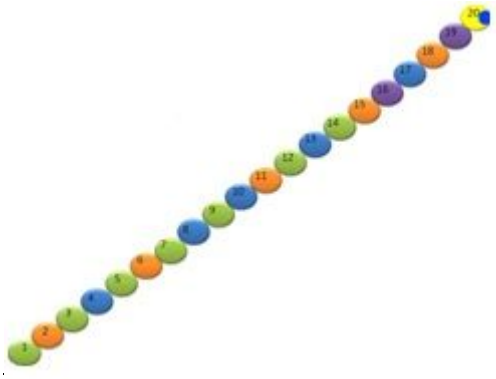


Figure 1: User Interface of the 'Reach 20 First' game

The teacher informs the students that their opponent, the computer, always plays first. The students play some games against the computer. It is very likely that most students will defeat the computer. The teacher might hear students' comments as "The computer is not so smart", "This computer is not smart at all", "the computer is an idiot", "look how the computer plays!" (Because the program (link) that leads the computer (https://tinyurl.com/thesillyprogram)* plays indeed in a silly way).

Then, the teacher announces that the paper (See Appendix 1) he/she is holding is intelligent. Actually it is more intelligent than the computer they have just played against, even more intelligent than everyone in the class, because if it plays first in "Reach 20 first" game, it always beats anyone in the world! Then, he/she asks the students to tell him/her whether they believe them or not. The teacher congratulates the students on their wisdom (both for believing such a wise person as the teacher and especially those that don't – after all no good scientist believes claims of random people making great pronouncements, however great they are, without some evidence).

Then the teacher explains that they will prove that the paper is intelligent by playing some games of "Reach 20 first" against it and try to win at least one time.

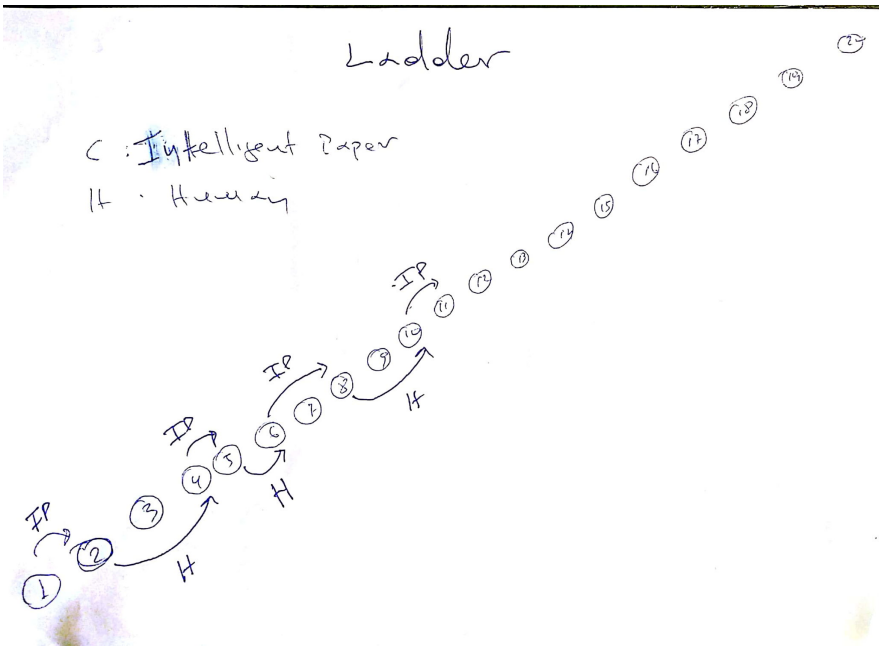
Next, the teacher asks for two volunteers who will help him/her to prove his/her claim. The teacher draws a ladder with 20 steps (Figure 1) and gives each volunteer a marker of different color.

He/she also explains that the paper is 'peripherally challenged' – as they didn't bring it a robotic arm or camera system (computer peripherals) so it needs a servant to do its bidding. One person will therefore play for the piece of paper. Their job is to just do what they are told by the paper. They must switch off their highly intelligent brain and do exactly as they are commanded: we don't want to know how well they play the game, just how well the paper plays. The other player is there to represent the best of humanity.

As the paper is so intelligent, to make it fairer, the teacher says students can get help from the audience if they need it. Tell the audience to shout out if they think a mistake is being made or know the move to make.

The paper plays first. If someone complains about it being unfair, point out that when they were playing against the computer in their computer lab, the

	computer was playing always first, yet, it was defeated. Therefore, if their classmate –with their help- played smarter than the paper, they would defeat it, even if they played second. The teacher tells the students to design a ladder in their notebooks every time the game is played and watch carefully and write down all the moves (both paper and human's) in order to understand the way the paper plays. Later, they will be asked to describe the way the paper plays. The servant of the paper makes the first move. Then, it is the human's turn; the paper's servant follows and so on (see Appendix 2). At the end of the game the paper wins. The game is played at least three (3) times in a row using different students. Every time, in the end, the paper wins. The teacher points out that he/she has given the evidence that students asked for. He/She asks again for a show of hands as to who now believes the paper is intelligent. Usually everyone now is sure it isn't intelligent, despite the evidence of its abilities. The teacher points out that it did show intelligent behaviour so there is intelligence somewhere. Where is it? Someone will almost certainly say it is in the person that wrote the instructions. Ask if everyone agrees that that is where the intelligence is and get a show of hands. Now the teacher explains that what is on the paper is essentially an algorithm: instructions to be blindly followed. Everything they have ever seen a computer do, it was just doing by blindly following instructions in the same way, written in language the computer understands (programming language). The teacher points out that if they are saying that the paper is not intelligent because it is just following rules, then they are saying no computer could ever be intelligent either. These instructions were written in a language so that a human can follow them. If they were to be written for a computer they would be written in a programming language: just a language a computer can understand precisely and so follow. The teacher points out that if they think that it is the writer of the instructions who is the creative intelligent one, then they are saying that computer programmers are intelligent and creative (which is true). It is computer programmers who have written all the instructions all those computers are following. Appendix 1 (for teachers): The algorithm on the paper that beats everyone in "Reach 20 first" game /*before the game put the pawn on step 1*/ /*the paper goes first*/ MOVE 1 step REPEAT the following instructions UNTIL the pawn reaches 20 WAIT for the human to play IF the human moves the pawn one step THEN MOVE two steps ELSE MOVE one step

	Appendix 2 The ladder handwritten in paper  ***B) ASSESSMENT:*** *Indicators:* 5.3.2.3-5.3.2.4
Resources	
Task Workload	1 hour
Task 1.2	**Writing the winning algorithm**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** (Addressed to the students) 1. Form a group with 3 or 4 members. 2. Each member of the group creates an "intelligent" piece of paper that has an algorithm written in your language (similar to the one of the "intelligent" paper of the previous Task 1.1), that plays the "Reach 20 First" game and every time it plays first it defeats its opponent. 3. You can collaborate with the members of your group and discuss the problem solving strategies as well as the solutions reached. 4. As a group you will hand your best "intelligent" paper over to me and we will test them together. 5. You will have the opportunity to debug your personal "intelligent" papers individually and then hand them over to me for summative evaluation according to the rubric CAS_Reach 20 first_INS1_rubric1

	Teaching notes: ***B) ASSESSMENT:*** *Indicators:* 5.3.2.4
Resources	• Adequate device with internet
Task Workload	40 minutes
Activity 2	**Making the computer always win at "Reach 20 First!" game**
Description	In this activity, the students study the code of the "silly program" written in Snap!. Then, using the algorithms they have designed in Activity 1, they debug the code to write a program that beats anyone whenever it plays against the computer. Thus, the students apply abstraction, automation and analysis (computational thinking processes) in a specific programming language. Before starting the activity the teacher will provide each student with a copy of the evaluation rubric with the information of what it is that they are expected to do in this activity and the minimum requirements to pass it.
Total Activity Workload	**40 minutes** task 2.1 - 40 minutes
Task 2.1	**What do you want? What do you not want?**
Description	***A) DESCRIPTION (to the Scenario Creation Tool):*** 1. Open the program (https://tinyurl.com/thesillyprogram) in Snap! 2. Let's see the interface as well as the instructions of the program that had been leading the computer in the "Reach 20 First" game we played in the first hour. Let me hear your questions! 3. Individually or in pairs, take your algorithms that we have tested on the previous task and let's debug the program that leads the computer in this computer game. Let's use these algorithms to make the computer unbeatable! 4. Save as the program with your name. 5. Your debugging task will be evaluated using this CAS_Reach 20 first_INS2_Rubric2 ***B) ASSESSMENT:*** *Indicators:* 5.3.2.3
Resources	• Adequate device with internet
Task Workload	40 minutes
Task Workload	1 hour

3.7.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - Playing the "Reach 20 first!" game: intelligence in paper

Task 1.1 - Playing the "Reach 20 First!" game: Intelligence in paper	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
5.3.2.3 Application of the computational thinking process in a specific programming language.	The computational thinking process is not applied in any programming language.	The computational thinking process is hardly applied in a programming language and with many mistakes.	The computational thinking process is applied in a programming language with some minor mistakes.	The computational thinking process is applied in one or more specific programming languages without problems.
5.3.2.4 Application of the computational thinking process to different situations.	The computational thinking process is not applied in any situation.	The computational thinking process is barely applied in one single situation.	The computational thinking process is applied in more than one situation with some difficulties.	The computational thinking process is applied in different situations without any problems.

Task 1.2 - Writing the winning algorithm	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
5.3.2.4 Application of the computational thinking process to different situations.	The computational thinking process is not applied in any situation.	The computational thinking process is barely applied in one single situation.	The computational thinking process is applied in more than one situation with some difficulties.	The computational thinking process is applied in different situations without any problems.

ACTIVITY 2 - Making the computer always win at "Reach 20 First!" game

Task 2.1 - Making the computer unbeatable at "Reach 20 First!" game	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
5.3.2.3 Application of the computational thinking process in a specific programming language.	The computational thinking process is not applied in any programming language.	The computational thinking process is hardly applied in a programming language and with many mistakes.	The computational thinking process is applied in a programming language with some minor mistakes.	The computational thinking process is applied in one or more specific programming languages without problems.

3.8. CAS: "Tips to become a responsible digital citizen"

3.8.1. SCENARIO INTRODUCTION

Author: Maria Moreno (UOC)

"Tips to become a responsible digital citizen" is about a project **whose main objective is the** design and creation of a poster in order to show tips on how to become a responsible digital citizen, addressed to the pupils, teachers and non-teaching staff from their school.

This project **is designed for students aged** 14-16 years old.

"Tips to become a responsible digital citizen" consists of 5 **activities** (introduction and 4 activities) **and has a duration of** 7 hours and 40 minutes.

The learning methodology (or instructional approach) that will be used for this project, is project based-learning with collaborative pairs. Project-based learning is proved to be an effective way for learning and developing learning competencies. The idea behind projects is to engage students and provide relevance for meaningful and interesting learning. By working on a project, students learn how to take initiative and be responsible, communicate their ideas, build their confidence and manage themselves better.

Students will develop the work in an individual, pairs and groups **way**.

The curricular / disciplinary competences involved in the scenario are ICT/Computer Science and Civics/Social education.

The Digital Competence is developed through the creation of a poster whilst always taking care to respect the authors' rights and searching digital information about digital citizenship.

The subjects involved are ICT **and the main themes are** Digital footprint, Healthy habits working with a device, ICT protection (device and user) and PLE (Personal Learning Environment).

The assessment of "Tips to become a responsible digital citizen" will be carried out through formative assessment by the teacher and student self-assessment and peer assessment with the use of the developed assessment instruments which are rubrics, scales and checklists. In this way, students take part in the assessment and are more conscious about their progress. **The evaluation is planned to take place** after the tasks or the activities are completed.

3.8.2. SCENARIO ACTIVITIES AND TASKS

Activity 0	**Introduction**
Description	In this activity the teacher is going to introduce the CAS. The teacher will provide principal information about the Scenario: what students are asked to do (create a digital poster in order to advertise tips to be a better digital citizen addressed to the pupils, teachers and non-teaching staff from their school) and how they will work (individually, in pairs and in groups).
Total Activity Workload	*5 min*
Task 0.1	**Explanation about the Scenario**
Description	A) DESCRIPTION: The teacher will explain to students the principal information of the Scenario: -The Scenario is about creating a digital poster in order to advertise tips to become a responsible digital citizen addressed to the pupils, teachers and non-teaching staff from their school. - Subjects involved are ICT/Computer Science and Civics/Social education. -The Scenario has 5 activities (introduction activity plus 4 activities) and its duration is 7 hours and 35 minutes. Along with the activities students will read some information or watch some videos to get introduced to the topics, search relevant information about digital footprint, ergonomics in the workplace, PLE and finally create the digital poster.

	-During the project, students will work individually and in a collaborative way (in pairs and groups). -The teacher and the groups will be active in the assessment of the Scenario (teacher assessment, peer assessment and self-assessment). The assessment instruments will be rubrics, scales and checklist. The assessment is planned after the tasks or activities.
Resources	Information about the CAS.
Task Workload	**5 min**
Activity 1	**Who am I (digital)?**
Description	In activity one, students will learn about the digital footprint (what is it, how to control it and its repercussion). Students will work individually, in pairs and in groups.
Total Activity Workload	**1 hour and 30 minutes** (task 1.1 - 45 minutes) (task 1.2 - 45 minutes)
Task 1.1	**Digital Footprint**
Description	***A) DESCRIPTION:*** Students watch the following video as introduction to the topic: Digital natives (2008, August, 13). *Youth and Media - Digital Dossier*. Youtube. https://www.youtube.com/watch?v=79IYZVYIVLA (Duration: 4'23") Students work individually and search for information about the digital footprint in order to answer the following questions: Students work individually and have to find out the answers to these questions. To do that task, first of all students will plan an information search to find the answers to the following questions (timing, tools, goals, etc.). Students will write down that planning into a digital document and they should upload as a story [E.1.1A] ● What is a digital footprint? ● Who can create it? ● Why control it? ● How to control it? Students work in pairs (student A and B) and share the answers they have found. Then, students search all the information about the peer they are working with on the Internet and collect it in a document and share it with him/her. Student A records the information found about student B and the reference of where and how he/she found it. Tips to find information: Use name, phone number, email, social networks…

	Once the partner has finished the **document, share** it with student B. Student B reads the document and comments his/her **feelings / impressions / thoughts** of the information that the peer has found. [E1.1B] Now, students know how easy it is to find anybody on the Internet. **<u>Teaching notes:</u>** *Teacher decides the way to watch the video (place, device and watching dynamics). In this task and next (task 3.1, task 3.3, task 3.4 and task 4.1), students need to work in pairs. The teacher can decide the pairs of students that will work together throughout the project or she/he can leave it to the students to decide ***ASSESSMENT:*** -The students assess their exposition to the Internet using a scale after task 1.1. *Evidence:* [E1.1A] document search [E1.1B] document feelings/impressions *Assessment instrument:* Scale (Self-assessment) *Indicators:* [E1.1A] 3.1.1 [3.1.1.1-3.1.1.2] [E1.1B] 1.1.1 [1.1.1.2-1.1.1.3]
Resources	• Video: Digital Dossier • Digital devices with Internet • example information search plan
Task Workload	45 minutes
Task 1.2	**Information spreads like wildfire**
Description	***A) DESCRIPTION:*** *(Individually)* Students read the following article: https://www.kshb.com/news/region-kansas/kansas-teachers-tweet-for-lesson-goes-viral (english) https://verne.elpais.com/verne/2018/01/11/articulo/1515679806_775981.html (spanish) Now, students can imagine how fast the information can spread. *(Groups)* Students in groups (4-5 students) will create an experience like the previous one taking into account: • What will they create? Message and format (text, image, video…) • What tool will they use and why? How will students control the spreading? • Make a hypothesis about the impact in one day: How many people will they receive it? How far will it arrive? Students write down the plan and share it with the teacher. Students start the *experiment* and wait for 24 hours before they check the results. Do the

	results surprise the students? Why? Was the hypothesis accepted or rejected? Each student writes down the answers in a story. *(Individually)* Now, students should write down a self-reflection [E1.2] into a story explaining what they have learnt during activity 1 about the following topics: ● Footprint concept ● Student's footprint: Did you expect the information that your peer found about yourself? What is the impact of the digital marks you made on you? ● Knowing your footprint, would you change something to hide some of your information on the net? ● Risks to share personal information online. Will students use a strategy in order to share one's own information on the net? What kind of strategy? **Teaching notes:** In this task, students need to work in groups. The teacher can decide the students of the groups that will work together throughout the task or she/he can leave it to the students to decide. It is a good idea to put together two pairs from task 1.1 and become a group of 4 students. ***ASSESSMENT:*** -The teacher assesses the student's self-reflection using a rubric after task 1.2. *Evidence:* [E1.2] self-reflection *Assessment instrument:* Rubric (Teacher assessment) *Indicators:* 1.1.1 [1.1.1.1-1.1.1.2-1.1.1.3]
Resources	● https://www.kshb.com/news/region-kansas/kansas-teachers-tweet-for-lesson-goes-viral (english) ● https://verne.elpais.com/verne/2018/01/11/articulo/1515679806_775981.html (spanish) ● Digital devices with Internet
Task Workload	45 minutes
Activity 2	**Protection from what and how?**
Description	It is important to know different kinds of protection to preserve information and one's own identity on the net. In this activity, students will learn about that protection and what they can do as users to develop a strong and save security.
Total Activity Workload	**2 hours** (task 2.1 - 30 minutes) (task 2.2 - 30 minutes) (task 2.3 - 1 hour)

Task 2.1	Virus and other dangers
Description	***A) DESCRIPTION:*** Students watch the following videos to get introduced to the topic of the task: SciShow. (2016, June, 26). *5 of the Worst Computer Viruses Ever.* https://www.youtube.com/watch?v=DF8Ka8Jh0BQ (Duration: 9'36") SciShow. (2017, February, 7). *Is Public Wi-Fi Safe?* https://www.youtube.com/watch?v=bdVkkRmJEeM (Duration: 2'53") Then, students search information about: ● Why is it important to protect your devices from any kind of virus? ● What can you do to get protection? ● How to protect an electronic device from electrical surge? ● How to make the battery last longer? ● Does fake truth exist about that issue? Students save that information to use it later. **Teaching notes:** *Teacher decides the way to watch the video (place, device and watching dynamics). If more information is needed, teacher can provide students with the following video: SciShow. (2016, October, 2). *5 More Computer Viruses You Really Don't Want to Get* https://www.youtube.com/watch?v=wopM3A3tyTw (Duration: 11'06") ***B) EVIDENCE:*** NO ASSESSMENT ***Evidence:*** - ***Assessment instrument:*** - ***Indicators:*** -
Resources	● Digital devices with Internet ● Links to: https://www.youtube.com/watch?v=DF8Ka8Jh0BQ https://www.youtube.com/watch?v=bdVkkRmJEeM
Task Workload	30 minutes
Task 2.2	**Do you think your password is unpredictable?**

Description	***A) DESCRIPTION:*** *(individually)* Students read the following articles: Broida, R. (2010, January, 2). *WTF: Millions Still Using '123456' as Their Password*. CBSNews. https://www.cbsnews.com/news/wtf-millions-still-using-123456-as-their-password/ Ngak, C. (2012, October, 24). *The 25 most common passwords of 2012*. CBSNews. https://www.cbsnews.com/news/the-25-most-common-passwords-of-2012/ Those articles are from 2010 and 2012, do you think that in the current year people use different passwords? Search what is the most common password in the current year. Student watch the following videos: How to Create a Strong Password (2014) (3'30"): https://www.youtube.com/watch?v=aEmF3IylvR4 Safe Web Surfing: Top Tips for Kids and Teens Online (2013) (5'01"): https://www.youtube.com/watch?v=yrIn8nyVBLU What about students and its passwords? How much time would take a computer to crack your password? Are your passwords secure? Check your passwords (CRISS platform, e-mail, social media, apps, electronic devices, connection, etc.) here: https://howsecureismypassword.net/ and if you need to change them or not. Do you know the existence of passwords' generators? Search one and check if the passwords generated are strong and secure. **Teaching notes:** *Teacher decides the way to watch the video (place, device and watching dynamics). Teacher can give to students the passwords' generator instead to search it, for example: https://strongpasswordgenerator.com/ https://passwordsgenerator.net/ ***ASSESSMENT:*** NO ASSESSMENT

Resources	• Digital devices with Internet • Links to: articles (2), videos (2) and passwords' checker (1).
Task Workload	30 minutes
Task 2.3	**What can I do? (Essay)**
Description	***A) DESCRIPTION:*** *(individually)* Write down a **critical essay** (500 words / 1 ½ page) [E2.3]. Include in the essay your **reflection** and **impression** about the information given in the previous tasks and the one students have found (include the references at the end of the document). Students make a self-reflection about: • Why is it important to protect your devices from any kind of virus? • What can you do to get protection? • How to protect an electronic device from electrical surge? • How to make the battery last longer? • Does fake truth regarding these issues exist? • Are your passwords secure and strong? Justify why or why not. In the case that a change is needed describe the strategy you will use to do it. **<u>Teaching notes:</u>** The essay has a limit of 500 words or 1 ½ page but the teacher can decide to reduce or increase the word limit depending on his/her students. ***ASSESSMENT:*** -The teacher assesses the student's essay using a rubric after task 2.3. -The students assess themselves using a rubric after task 2.3. ***Evidence:*** [E2.3] Essay ***Assessment instrument:*** Rubric (teacher assessment - self-assessment) ***Indicators:*** 1.2.2 [1.2.2.1-1.2.2.2]
Resources	• Digital devices with Internet
Task Workload	1 hour
Activity 3	**How do we work?**
Description	In this activity, students will learn two important aspects people should take into account when they are working (physical and digital workplace). Students will get introduced to the topic watching short videos or reading short articles, then they will search more information about the topic and at the end of the activity they will write an essay to synthesize all (the information given and that found).

Total Activity Workload	**3 hours and 30 minutes** (task 3.1 - 30 minutes) (task 3.2 - 1 hour) (task 3.3 - 30 minutes) (task 3.4 - 1 hour and 30 minutes)
Task 3.1	**Is my workplace appropriate?**
Description	***A) DESCRIPTION:*** *(pairs)* The students form pairs to work. Student A takes photos of student B and vice versa (from 3 to 5) of the different posture that they adopt while using an electronic device (e.g. tablet, mobile phone, computer…). Each student will share all the photos with his/her pair (using the digital tool they want, such as: email, shared folder, external memory, etc.). Once the student has received at least 3 photos, he/she can start to create a presentation [E3.1] including the photos and a short description and critique (2-3 lines) about the ergonomic posture that he/she has in each one. To understand what "ergonomic" means, students can watch the following video: Safety Ergonomics @ Work (1'01"). The presentation can be done in the tool that the student will choose but it is important to save it because they will need it in task 3.3. Once the presentation is done, each student will assess the posture of the photos taking into account the "CAS_Tips_Activity3". **Teaching notes:** *Teacher decides the way to watch the video (place, device and watching dynamics). Students work in the same pairs as from task 1.1. Our proposal is that students will decide the way to share pictures, so as to become more independent, and the tool to create the presentation. If the teacher wants to guide them, he/she can do it. ***ASSESSMENT:*** NO ASSESSMENT ***Evidence:*** - ***Assessment instrument:*** - ***Indicators:*** - In this task there is no assessment. Students start an evidence (presentation) that will be finished in task 3.3 and assessed at the end of Activity 3.
Resources	• camera or device with camera • Digital devices with Internet • Link: https://www.youtube.com/watch?v=xIC52TTD83E

	• CAS_Tips_Activity3
Task Workload	30 minutes
Task 3.2	**How we should work and consequences (physical and psychological)**
Description	***A) DESCRIPTION:*** It is always important to pay attention to one's own posture but especially when you spend a great amount of hours in front of an electronic device in the same posture. Students watch the following video to introduce them into the topic: TED-Ed. (2015, July, 15). *The benefits of good posture - Murat Dalkilinç*. Youtube. https://www.youtube.com/watch?v=OyK0oE5rwFY Duration: 4'26" Once students have watched the video, they can search for information about other physical and/or psychological risks that can occur when working improperly or without paying attention to some issues, take into account the following topics: • hours using a device • posture (body, head, arms, legs…) • radiation • hearing • eyesight • headache • … etc. Students create a mind map using the tool MindMup [E3.2] (integrated into the CRISS platform) to resume the information they have found. Remember to include the references (in the map or in an additional file). **Teaching notes:** *Teacher decides the way to watch the video (place, device and watching dynamics). Teacher can provide more information such as the following videos: • Do Cell Phones Cause Cancer? (4'00") • How Your Phone Affects Your Brain And Body (7'49") • Is radiation dangerous? (5'20") • Use of Headphones (1'16") ***ASSESSMENT:*** -The teacher assesses students' conceptual maps using a rubric after task 3.2. ***Evidence:*** [E3.2] Mind Map ***Assessment instrument:*** Rubric (teacher assessment) ***Indicators:*** 1.1.3 [1.1.3.1-1.1.3.2-1.1.3.3] 4.2.2 [4.2.2.3-4.2.2.4]

Resources	• Digital devices with Internet • Link: https://www.youtube.com/watch?v=OyK0oE5rwFY
Task Workload	1 hour
Task 3.3	**Finish the presentation**
Description	***A) DESCRIPTION:*** After task 3.2, students will take photos again of their peers but on that occasion the students must be in a correct posture (body, head, arms, hands, legs, feet, etc.). Then, like in task 3.1 students will send the photos to his/her peer and the receptor will include the "correct photos" into the presentation that he/she started in task 3.1. The objective of the presentation is to show if there are changes in the student's posture and its justification. Once the presentation is finished, students upload it into a story and share it into their e-portfolio. **Teaching notes:** Students work in the same pairs from task 1.1. Our proposal is that students will decide the way to share pictures so as to become more independent. If the teacher wants to guide them, he/she can do it. ***ASSESSMENT:*** -The students assess his/her presentation using a rubric after task 3.3. ***Evidence:*** [E3.1 updated] Presentation ***Assessment instrument:*** Rubric (self-assessment - teacher assessment) ***Indicators:*** 1.1.3 [1.1.3.1-1.1.3.4] 4.1.4 [4.1.4.2-4.1.4.4] At the end of the task, each student will self-assess their posture taking into account the changes comparing the first photos and the second ones that show the presentation [E3.1 updated] using a rubric.
Resources	• Camera or device with camera • Digital devices with Internet • Rubric
Task Workload	30 minutes
Task 3.4	**PLE (Personal Learning Environment)**
Description	***A) DESCRIPTION:*** Students watch and compare the two following pictures and express their opinion about what kind of workplace they would like to work in: Picture 1. Work place one.

(https://pixabay.com/en/workplace-imac-desktop-creative-3236523/#)
CC: https://creativecommons.org/publicdomain/zero/1.0/deed.en

Picture 2. Workplace two.

(https://www.flickr.com/photos/denverjeffrey/1950409800)
CC: https://creativecommons.org/licenses/by-nd/2.0/

At first sight, both work places are extremely different but if you pay attention you can see a lot of similarities. Could you say some of them? In pairs, students talk about these similarities.

Then, in pairs students search information about:

	• What is PLE (Personal Learning Environment) and its components (people, devices, tools and resources) and try to identify them in the two pictures. • What are the privacy policies and how they help users to protect their digital identity. Once they have the PLE's information, each student will create a mind map [E3.4] using MindMup of his/her PLE. At the end of the task, each student will assess their PLE using a checklist. After the self-evaluation, students will add into the mind map what they need to improve to have a better PLE and the strategy they would like to follow to go further. In order to identify the current PLE and the purpose of the new one, students should include the additional information in a different format (e.g. type, italics, color, size, shape, etc.). Students create a mind map using MindMup of their PLE. **<u>Teaching notes:</u>** Students work in the same pairs from task 1.1. It is important that students have the rubric in advance so to know what they are going to assess. ***ASSESSMENT:*** -The teacher assesses students' conceptual maps using a rubric after task 3.4 taking into account both versions (the real PLE and the improvements). -The students assess their mind maps using a rubric after task 3.4 taking into account the real PLE. ***Evidence:*** [E3.4] mind map ***Assessment instrument****:* Rubric (teacher assessment - self-assessment) ***Indicators****:* 1.1.2 [1.1.2.1-1.1.2.2] 1.2.2 [1.2.2.1-1.2.2.2-1.2.2.3] 3.2.2 [3.2.2.1-3.2.2.2-3.2.2.3]
Resources	• Digital devices with Internet
Task Workload	1 hour and 30 minutes
Activity 4	**Tips to become a responsible digital citizen**
Description	In this activity, students in pairs will create a digital poster to advertise tips about how to become a responsible digital citizen addressed to the pupils, teachers and non-teaching staff from their school.
Total Activity Workload	**1 hour** (task 4.1 - 1 hour)
Task 4.1	*Digital Poster Creation*
Description	***A) DESCRIPTION:***

	Students in pairs will create a digital poster [E4.1] in order to advertise tips about how to be a better digital citizen addressed to the pupils, teachers and non-teaching staff from their school. Students apply the knowledge learnt in the project. The format of the digital poster is an A3 sheet (297 x 420mm). Students should respect author rights as always. Once the digital poster is done, students in pairs will assess the other's poster using a rubric. **Teaching notes:** Students work in the same pairs from task 1.1. Students can work on the same device or use one device individually and collaborate on the digital creation. To show all the digital posters can be printed or share the digital version with all students. 2 hours: digital poster creation. 1 hour: peer and teacher assessment. ***ASSESSMENT:*** -The teacher assesses students' posters using a rubric during task 4.1. -The students assess the other's poster using a rubric during task 4.1. ***Evidence:*** [E4.1] Digital Poster ***Assessment instrument:*** Rubric (teacher assessment, peer assessment) ***Indicators:*** 1.1.1 [1.1.1.1] 1.1.3 [1.1.3.1-1.1.3.2-1.1.3.3-1.1.3.4] 1.2.2 [1.2.2.1-1.2.2.2-1.2.2.3]
Resources	• Digital devices with Internet • Rubric
Task Workload	1 hour

3.8.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - WHO AM I (digital)?				
Task 1.1 - Digital Footprint	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**

1.1.1.2 Identity management. Level of exposure of student's digital footprint (in terms of risks).	The student does not protect any personal information on the Internet. It is easy to find any private information about the student on the internet.	The student protects some information about his/her person on the Internet. It is easy to find some private information about the student on the Internet.	The student protects almost all the information about his/her person on the Internet. It is not easy to find some private information about the student.	The student does not show any personal information on the Internet. It is difficult to find any private information about the student.
1.1.1.3 Level of coherence between students' self-perception of their digital identity and their digital footprint.	There is no level of coherence or it is ineffective. The student is not conscious of his/her digital identity and his/her footprint and does not know how to manage them.	The level of coherence is low. The student is conscious of his/her digital identity and his/her footprint but faces many problems in managing them.	The level of coherence is high. The student is conscious of his/her digital identity and his/her footprint but faces some problems in managing them.	The level of coherence is profound. The student is conscious of his/her digital identity and his/her footprint and manages them perfectly.
3.1.1.1 Adequacy and coherence of planning information search to the needs.	Students do not plan information search to match the needs.	Student's planning of information search is poor regarding their needs.	Student's planning of information search is adequate for their needs.	Student's planning information search is excellent for the needs.
3.1.1.2 Viability of the planning in terms of timing, content, tasks, tools, goals, etc.	The planning and its viability is poor (it does not contain any of the following points: timing, content, tasks, tools, goals, etc.).	The planning or its viability is poor (it contains some of the following points: timing, content, tasks, tools, goals, etc.).	The planning and its viability is adequate (it contains some of the following points: timing, content, tasks, tools, goals, etc.).	The planning and its viability is excellent (it contains all of the following points: timing, content, tasks, tools, goals, etc.).

Task 1.2 - Information spreads like wildfire	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.1.1.1 Awareness of the risks and benefits when presenting themselves online in different ways (e.g. academic and personal).	The student is not aware of the risks and benefits. The student uses any filter to present his/her self online.	The student is aware of the risks and benefits. The student has some filters in order to present his/her self online.	The student is aware of the risks and benefits. The student has some filters in order to present his/her self online.	The student is aware of the risks and benefits. The student has filters in order to present his/her self online and uses them for his/her benefits.

1.1.1.2 Identity management. Level of exposure of student's digital footprint (in terms of risks).	The student does not protect any personal information on the Internet. It is easy to find any private information about the student on the internet.	The student protects some information about his/her person on the Internet. It is easy to find some private information about the student on the Internet.	The student protects almost all the information about his/her person on the Internet. It is not easy to find some private information about the student.	The student does not show any personal information on the Internet. It is difficult to find any private information about the student.
1.1.1.3 Level of coherence between students' self-perception of their digital identity and their digital footprint.	There is no level of coherence or it is ineffective. The student is not conscious of his/her digital identity and his/her footprint and does not know how to manage them.	The level of coherence is low. The student is conscious of his/her digital identity and his/her footprint but faces many problems in managing them.	The level of coherence is high. The student is conscious of his/her digital identity and his/her footprint but faces some problems in managing them.	The level of coherence is profound. The student is conscious of his/her digital identity and his/her footprint and manages them perfectly.

ACTIVITY 2 - PROTECTION FROM WHAT AND HOW?

Task 2.3 - What can I do? (Essay)	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.2.2.1 Knowledge of the dangers in using the Internet, which can affect devices and digital systems.	The student only knows that there are some dangers in using the internet, but he/she cannot identify more than one.	The student knows the nature and danger of different malware (trojans, virus, spyware, etc.).	The student knows the nature and danger of different malware (trojans, virus, spyware, etc.) and knows how to protect devices or digital systems with some programs, such as antiviruses.	The student knows the nature and danger of different malware (trojans, virus, spyware, etc.) and knows how to protect devices or digital systems with suitable programs and strategies, or using operating systems as Linux.
1.2.2.2 Use of different strategies to keep devices and digital systems safe against external	The student doesn't know how to minimize the risk of contracting a computer virus.	The student takes care not to open messages of unknown origin.	The student protects devices or digital systems with some programs, such as antiviruses.	The student always applies the most recent patches turning on automatic updates, or using operating systems as Linux.

threats.				

ACTIVITY 3 - HOW WE WORK?

Task 3.2 - How we should work and consequences (physical and psychological)	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.1.3.1 Awareness of the dangers that bad posture has on health (e.g. back pain, fatigue, eye strain, headache, etc.).	The student is not aware of the dangers bad posture has on health. The student has no disposition in order to protect his/her self.	The student is aware of some of the dangers bad posture has on health. Sometimes, the student presents some disposition in order to protect his/her self.	The student is aware of some of the dangers bad posture has on health. Sometimes, the student has some disposition in order to protect himself/herself.	The student is aware of lots of the dangers bad posture has on health. Always, the student has good disposition in order to protect himself/herself.
1.1.3.2 Awareness of the dangers of using headphones or being exposed to high volume has on health.	The student is not aware of using headphones or being exposed to high volume. The student has no disposition to protect his/her self.	The student is aware of some risks of using headphones or being exposed to high volume. Sometimes, the student presents some disposition in order to protect his/her self.	The student is aware of using headphones or being exposed to high volume. Sometimes, the student has some disposition in order to protect himself/herself.	The student is aware of the impact of using headphones or being exposed to high volume have on health. Always, the student has good disposition in order to protect himself/herself.
1.1.3.3 Consciousness of the damage electromagnetic radiation has on health and of its presence in digital environments.	The student is not conscious of the damage that electromagnetic radiation has on health and its presence in digital environments. The student has no disposition to protect his/her self.	The student is conscious of the damage electromagnetic radiation has on health or its presence in digital environments. Sometimes, the student presents some disposition in order to protect his/her self.	The student is conscious of the damage electromagnetic radiation has on health and its presence in digital environments. Sometimes, the student has some disposition in order to protect himself/herself.	The student is conscious of the damage electromagnetic radiation has on health and its presence in digital environments. Always, the student has good disposition in order to protect himself/herself.
4.2.2.3 Coherence between content and representation.	There is no coherence.	There is a simple coherence.	The coherence is right.	The coherence is very good.

4.2.2.4 Format quality of the representations (simple, clear, etc.).	The format quality is not organized.	The format quality is a little organized.	The format quality is a slightly well organized.	The format quality is organized and clear.

Task 3.3 - Finish the presentation	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.1.3.1 Awareness of the dangers that bad posture has on health (e.g. back pain, fatigue, eye strain, headache, etc.).	The student is not aware of the dangers bad posture has on health. The student has no disposition in order to protect his/her self.	The student is aware of some of the dangers bad posture has on health. Sometimes, the student presents some disposition in order to protect his/her self.	The student is aware of some of the dangers bad posture has on health. Sometimes, the student has some disposition in order to protect his/her self.	The student is aware of lots of the dangers bad posture has on health. Always, the student has good disposition in order to protect himself/herself.
1.1.3.4 Adaptation of the workspace and habits for preventing physical risks.	The student does not adapt to the workspace and habits. The student has no disposition to prevent physical risks.	The student adapts somehow to the workspace or habits. Sometimes, the student presents some disposition in order to prevent physical risks.	The student adapts the workspace or habits. Sometimes, the student has some disposition in order to prevent physical risks.	The student adapts the workspace and habits. Always, the student has good disposition in order to prevent physical risks.
4.1.4.2 Adequacy of the content taking into account the goals of the project.	The content is not relevant nor adequate.	Some of the content is not appropriate or does not answer the project questions. More research work should be done.	The content is appropriate but it could be analysed in more detail. Some important aspects/answers are missing or are not completed fully.	The content is carefully analysed, studied and selected. All the questions are answered with detail.
4.1.4.4 Quality of the presentation (linguistics, structure coherence, index, objectives, conclusion…).	Poor quality of the presentation considering linguistics, structure, coherence, index, objectives, conclusion, etc.	Sufficient quality of the presentation considering linguistics, structure, coherence, index, objectives, conclusion, etc.	Good quality of the presentation considering linguistics, structure, coherence, index, objectives, conclusion, etc.	Excellent quality of the presentation considering linguistics, structure, coherence, index, objectives, conclusion, etc.

Task 3.4 - PLE	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**

(Personal Learning Environment)	1	2	3	4
1.1.2.1 Quality of the verification of the privacy policies.	The work is not well protected, anyone can access it and edit it which could be very risky.	Students need the teacher's guidance to share and protect their work correctly. There are some sharing mistakes.	The privacy policies are usually correct and the work is usually shared correctly. Minor sharing mistakes could be found.	All the privacy policies are correct and the work is always shared appropriately. There has been a previous reflection about how we want to share our work.
1.1.2.2 Strategy used for guarding against identity theft and scams that try to access their private information online.	The student does not know strategies for guarding against identity theft and scams. Students create, use and share documents without reflecting about privacy. Student is not careful with his/her credentials and he/she usually does not log off from the online places.	The student knows some strategies for guarding against identity theft and scams. However, there are some privacy issues that should be reconsidered. He/she does not take care to log off from online places.	The student knows strategies for guarding against identity theft and scams and usually uses them. Sometimes, he/she does not take care to log off from online places.	The student knows good strategies for guarding against identity theft and scams and always uses them. Always, he/she takes care to log off from online places.
1.2.2.1 Knowledge of the dangers in using the Internet, which can affect devices and digital systems.	The student only knows that there are some dangers in using the internet, but he/she cannot identify more than one.	The student knows the nature and danger of different malware (trojans, virus, spyware, etc.).	The student knows the nature and danger of different malware (trojans, virus, spyware, etc.) and knows how to protect devices or digital systems with some programs, such as antiviruses.	The student knows the nature and danger of different malware (trojans, virus, spyware, etc.) and knows how to protect devices or digital systems with suitable programs and strategies, or using operating systems as Linux.
1.2.2.2 Use of different strategies to keep devices and digital systems safe against external threats.	The student doesn't know how to minimize the risk of contracting a computer virus.	The student takes care not to open messages of unknown origin.	The student protects devices or digital systems with some programs, such as antiviruses.	The student always applies the most recent patches turning on automatic updates, or using operating systems as Linux.
1.2.2.3 Assurance of devices	The student does not know how to protect devices nor	The student does not know how to protect devices but	The student can not always assure the device's protection	The student can mostly assure the device's protection

protection and knowledge about what or who to turn to when in need.	what or who to turn to when in need.	knows who to turn to when in need.	but knows what or who to turn to when in need.	and knows what or who to turn to when in need.
3.2.2.1 Flexibility and integration of one's own system with the people who share learning (teachers, students, experts, etc.).	There is no one's own system.	The personal system adopted is not flexible and does not allow for integration.	The personal system adopted is flexible but does not allow for integration.	The personal system has high flexibility and allows for completed integration.
3.2.2.2 Efficient and coherent management of tools and devices.	Only some required documents are uploaded in the corresponding folder. Only some required documents are also saved in at least one other way (their own computer, a pen-drive, etc.).	Most of the required documents are uploaded in the corresponding folder. Only some required documents are also saved in at least one other way (their own computer, a pen-drive, etc.).	All the required documents are uploaded in the corresponding folder. Most of the required documents are also saved in at least one way (their own computer, a pen-drive, etc.).	All the required documents are uploaded in the corresponding folder. The required documents are also saved in at least one other way (their own computer, a pen-drive, etc.).
3.2.2.3 Efficient and coherent management of the resources.	The resources are hardly used, many resources are missing or not visible.	The resources are managed at a basic level. There is a need for more efficient and coherent use, many important tasks are not visible and accessory aspects have an important place.	The resources are usually well managed, but the student can make more out of them, some resources have not the presence required for their importance.	All resources are well managed and the student makes the most out of them.

ACTIVITY 4 - TIPS TO BECOME A RESPONSIBLE DIGITAL CITIZEN

Task 4.1 - Digital Poster Creation	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.1.1.1 Awareness of the risks and benefits when presenting themselves online	The student is not aware of the risks and benefits. The student uses any filter to present	The student is aware of the risks and benefits. The student has some filters in order to	The student is aware of the risks and benefits. The student has some filters in order to	The student is aware of the risks and benefits. The student has filters in order to present

in different ways (e.g. academic and personal).	his/her self online.	present his/her self online.	present his/her self online.	his/her self online and uses them for his/her benefits.
1.1.3.1 Awareness of the dangers that bad posture has on health (e.g. back pain, fatigue, eye strain, headache, etc.).	The student is not aware of the dangers bad posture has on health. The student has no disposition in order to protect his/her self.	The student is aware of some of the dangers bad posture has on health. Sometimes, the student presents some disposition in order to protect his/her self.	The student is aware of some of the dangers bad posture has on health. Sometimes, the student has some disposition in order to protect himself/herself.	The student is aware of lots of the dangers bad posture has on health. Always, the student has good disposition in order to protect himself/herself.
1.1.3.2 Awareness of the dangers of using headphones or being exposed to high volume has on health.	The student is not aware of using headphones or being exposed to high volume. The student has no disposition to protect his/her self.	The student is aware of some risks of using headphones or being exposed to high volume. Sometimes, the student presents some disposition in order to protect his/her self.	The student is aware of using headphones or being exposed to high volume. Sometimes, the student has some disposition in order to protect himself/herself.	The student is aware of the impact of using headphones or being exposed to high volume have on health. Always, the student has good disposition in order to protect himself/herself.
1.1.3.3 Consciousness of the damage electromagnetic radiation has on health and of its presence in digital environments.	The student is not conscious of the damage that electromagnetic radiation has on health and its presence in digital environments. The student has no disposition to protect his/her self.	The student is conscious of the damage electromagnetic radiation has on health or its presence in digital environments. Sometimes, the student presents some disposition in order to protect his/her self.	The student is conscious of the damage electromagnetic radiation has on health and its presence in digital environments. Sometimes, the student has some disposition in order to protect himself/herself.	The student is conscious of the damage electromagnetic radiation has on health and its presence in digital environments. Always, the student has good disposition in order to protect himself/herself.
1.1.3.4 Adaptation of the workspace and habits for preventing physical risks.	The student does not adapt to the workspace and habits. The student has no disposition to prevent physical risks.	The student adapts somehow to the workspace or habits. Sometimes, the student presents some disposition in order to prevent physical risks.	The student adapts the workspace or habits. Sometimes, the student has some disposition in order to prevent physical risks.	The student adapts the workspace and habits. Always, the student has good disposition in order to prevent physical risks.
1.2.2.1 Knowledge of the dangers in using the Internet, which can affect	The student only knows that there are some dangers in using the internet, but	The student knows the nature and danger of different malware (trojans, virus, spyware,	The student knows the nature and danger of different malware (trojans, virus, spyware,	The student knows the nature and danger of different malware (trojans, virus, spyware,

devices and digital systems.	he/she cannot identify more than one.	etc.).	etc.) and knows how to protect devices or digital systems with some programs, such as antiviruses.	etc.) and knows how to protect devices or digital systems with suitable programs and strategies, or using operating systems as Linux.
1.2.2.3 Assurance of devices protection and knowledge about what or who to turn to when in need.	The student does not know how to protect devices nor what or who to turn to when in need.	The student does not know how to protect devices but knows who to turn to when in need.	The student can not always assure the device's protection but knows what or who to turn to when in need.	The student can mostly assure the device's protection and knows what or who to turn to when in need.

3.9. CAS: "Alice Through the Screen and What Alice Found There"

3.9.1. SCENARIO INTRODUCTION

Author: Pablo Baztán (UOC)

"Through the Screen, and What Alice Found There" is about *a project* **whose objective is** to reflect on the impact that technology has on the environment and how people can reduce it. The students will participate actively through digital technologies in social improvement and environmental sustainability initiatives.

This project **is designed for students** 15-16 **years old**.

"Through the Screen, and What Alice Found There" consists of 3 **activities and has a duration of** 9 hours (plus a 5-minute introduction).

The learning methodology (or instructional approach) that will be used in *this project,* **is** case-based learning, as this is an opportunity for students to apply their knowledge in real-world scenarios.

The students will develop their work individually, and in some tasks in a collaborative way (in groups).

The curricular / disciplinary competences involved in the scenario are Civics/Social education/Biology.

The students Digital Competence is developed through their engagement in improving social well-being, environmental sustainability and in enhancing personal empowerment, using digital technologies.

The subjects involved are Civics/Social education/Biology **and the theme** is to understand both the negative and positive impact and uses that digital technologies could have in our personal lives, social environment and nature.

The assessment of "Through the Screen, and What Alice Found There" is carried out through formative and summative assessment by the teacher, by the peers and by individual self-assessment. The teacher's formative assessment will be an ongoing process of gathering information on the whole learning process, using evaluation rubrics for each of the tasks.

The assessment instruments developed are rubrics and a scale. **The evaluation is planned** at the end of each activity, except for some tasks where the teacher should give feedback for the students to use in the next task.

3.9.2. SCENARIO ACTIVITIES AND TASKS

Activity 0	**Introduction**
Description	In this activity, the teacher is going to introduce the CAS and provide key information about the Scenario: what students are asked to do (create a digital poster (3R rules) and participate actively in social improvement and environmental sustainability initiatives) and how they will work (individually and in groups).
Total Activity Workload	*5 min*
Task 0.1	**Explanation about the Scenario**
Description	A) DESCRIPTION: The teacher will explain to the students the key / main information of the Scenario: -The Scenario is about the story "*Alice through the screen and what she found there*", an invitation to the students to see through their devices' screens to understand negative and positive impact and uses that digital technology could have in our personal lives, social environment and nature. - Subjects involved are ICT/Computer Science and Civics/Social education. -The Scenario has 4 activities (introduction activity plus 3 other activities), and its duration is 9 hours (plus 10 minutes for the introduction). Along the activities, the students will read the fictional story of Alice. The idea is that the story will invite the students to get involved and help with some issues. To achieve that, they will need to read some information or watch videos which will introduce them to the topics, search relevant information about 3R's rules, the circular economy, devices' impact and what people can do about it.

	-During the project the students will work individually and, in some tasks, in a collaborative way (in groups). -The teacher and the groups will be active in the assessment of the Scenario (teacher assessment, peer assessment and self-assessment). The assessment instruments will be rubrics and checklists. The assessment is planned for after the tasks or activities.
Resources	Information about the CAS.
Task Workload	**5 min**
Activity 1	**Break on Through**
Description	In this activity, each student will read the first chapter of the book and will help Alice find the way to arrive at certain places, where a campaign is being held.
Total Activity Workload	**2 hours** (task 1.1 - 30 minutes) (task 1.2 - 1 hour and 30 minutes)
Task 1.1	**To the Other Side**
Description	(individual) The students will read Chapter 1 from the book "Alice Through the Screen and What Alice Found There". *CHAPTER 1 <<Alice is playing with the computer when she ponders what the world is like on the other side of a screen. She knocks at the computer screen and discovers, to her surprise, that she is able to step through it to an alternative world.* *In this world, she meets new possibilities to act in several places and people are asking her to participate in different campaigns. But she is lost and needs some help.>>* To help Alice, every student has to choose one of the campaigns from sumofus.org, according to their personal interest. He/she then will have to justify their choice, without signing it, just by choosing one option. He/she should write a text explaining the reasons why they have chosen that campaign in comparison with the others in their portfolio as a story [E1.1]. **<u>Teaching notes:</u>** Each student needs to write a short text, which will not be assessed in the Digital Competence. ***B) EVIDENCE:*** *Evidence:* [E1.1] Text *Assessment instrument:* N/A *Indicators:* N/A
Resources	*Digital device* *Internet access*

	link: sumofus.org "Alice Through the Screen and What Alice Found There"
Task Workload	*30 minutes*
Task 1.2	**Alice finds her route**
Description	(individual) Once the students have chosen an option in Task 1.1, they should simulate a trip. They should imagine that Alice is in their school, and that she wants to go to the most relevant place mentioned in the chosen campaign. They will prepare a travel guide from their school to that place. To do this, the students should research websites where they can book transport tickets (bike, motorbike, car, bus, train, aeroplane, boat, etc.) and write a guide to help Alice find her way there. To create the travel guide [E1.2-A], each student will create a document which can include screenshots, text, tables, etc. Alice sometimes gets dizzy while in transport -it does not matter which means she is using-, and for that reason the travel guide will include three different routes taking into account different ways of transport, different budget, distance, how long the trip will take (time), etc. The students will have to compare the three options in a spreadsheet [E1.2-B]. Then, they will select the best route, explaining their reasoning. Each student should share the spreadsheet with the teacher and also upload the travel guide as a story in his/her portfolio. You can find an example in "CAS_Alice_task1.2". **Teaching notes:** ***B) EVIDENCE:*** *Evidence:* [E1.2-A] Travel guide [E1.2-B] Spreadsheet *Assessment instrument:* Rubric 1.2 - Teacher *Indicators:* [E1.2-A] PC 1.3.2 [1.3.2.1-1.3.2.2] [E1.2-B] PC 4.1.2 [4.1.2.1-4.1.2.4]
Resources	*Digital device* *Internet access*
Task Workload	*1 hour and 30 minutes*
Activity 2	**What does this sticker mean?**
Description	In this activity, the students read the second chapter of the book. The students will discuss the circular economy and what people can do about it. The students will also create a poster about the 3R's rules, for which they will need to find information.
Total Activity Workload	**2 hours and 30 minutes** (task 2.1 - 1 hour)

	(task 2.2 - 45 minutes) (task 2.3 - 45 minutes)
Task 2.1	**Circular economy**
Description	(collaborative) Watch the following videos to get a brief overview of our consumerism and the need for change! Maayke Damen - TED talks (11min30sec) Maayke, who has set up the biggest Dutch youth coalition for the UNFCCC, showed the audience the importance of establishing a circular-economy and using the earth's precious materials in a sustainable way. Circular economy (3min48sec) 'Re-Thinking Progress' explores how through a change in perspective, we can redesign the way our economy works - designing products that can be 'made to be made again' and powering the system with renewable energy. It questions whether, with creativity and innovation, we can build a restorative economy. Students read the following article: *http://www.bbc.com/future/story/20160612-heres-the-truth-about-the-planned-obsolescence-of-tech* The students in groups of 4-5 discuss the reactions to the films and the article, with focus on the following questions: *How can one act responsibly with digital technology?* *Do you think you act responsibly with digital technology? Why?* *What are the most important benefits of acting responsibly with digital technology? Who is benefited the most?* Each student individually answers the previous questions [E2.1] and uploads the answers in the e-portfolio as a story. **Teaching notes:** In this task, the students need to work in groups. The teacher can assign the students to the groups that will work together throughout the task, or she/he can leave this choice to the students. The teacher decides on the way to watch the video (place, device and watching dynamics). ***B) EVIDENCE:*** *Evidence:* [E2.1] Answers *Assessment instrument:* Rubric 2.1 *Indicators:* [E2.1] PC 1.3.1 [1.3.1.1-1.3.1.2]
Resources	*Digital device* *Internet access* *links:*

	Maayke Damen - TED talks *Circular economy*
Task Workload	1 hour
Task 2.2	**What is the 3 R's rule**
Description	***A) DESCRIPTION:*** (individual) The students read the second chapter of the book "Alice Through the Screen and What Alice Found There". *CHAPTER 2<< When Alice went to the other side of the screen, she realized that she left the computer on. She could see all the components, and she was surprised by the amount of different materials used on them. All the components had a little sticker. Alice got closed and she started to read: 3R". Alice didn't understand the meaning.>>* The students help Alice to understand what is the meaning of the "3R" that she found on the stickers on each component of her device. To do that, students research information about the 3 R's rules and complete the "search template" [E2.2] with the information they find. **Teaching notes:** The teacher should give personalised feedback in order to inform the students of what and how the information can be improved. The students can use this feedback for working on the next task 2.3. ***B) EVIDENCE:*** *Evidence:* [E2.2] Search template *Assessment instrument:* Rubric 2.2 - teacher / scale 2.2 - self-assessment *Indicators:* PC 1.3.1 [1.3.1.1-1.3.1.2]
Resources	*Digital device* *Internet access* "search template"
Task Workload	*45 minutes*
Task 2.3	**Creation of a poster**
	A) DESCRIPTION: (individual) The students create a poster [E2.3A] presenting some of the things Alice can do to reduce the impact of digital technologies on the environment. The students should take into consideration the teacher's comments to improve the information found in the previous task, and the information from the poster.

	The selection of the tool to create the poster and its design is up to each student (canva is a good option). The poster should contain the explanation of the 3 R's rules and at least two examples for each rule, demonstrating how they can be applied. Students should write a short text (100 words) justifying the selection of the tool, which should include comparisons with other tools.[E2.3B] **<u>Teaching notes:</u>** ***B) EVIDENCE:*** *Evidence:* [E2.3] Poster [E2.3B] short text *Assessment instrument:* Rubric 2.3 - peers - teacher *Indicators:* [E2.3] PC 1.3.1 [1.3.1.1-1.3.1.2] [E2.3B] PC 5.1.1 [5.1.1.2-5.1.1.3]
Resources	*Digital device* *Internet access* *Link:* canva
Task Workload	*45 minutes*
Activity 3	**More sides in Citizen Science**
Description	In this activity, the students read the third and fourth chapter of the book. The students are also invited to participate in initiatives, using the Internet and reflect on their participation.
Total Activity Workload	**4 hours and 30 minutes** (task 3.1 - 4 hours) (task 3.2 - 30 minutes) (task 3.3 - 30 minutes)
Task 3.1	**Citizen Science**
Description	***A) DESCRIPTION:*** (individual) The students will read the third chapter of the book "Alice Through the Screen and What Alice Found There". *CHAPTER 3 << Alice arrives so tired at the end of the virtual trip and falls asleep. Later on, Alice awakes in her room to find herself working on her computer. Everything may have, in fact, been a dream and what Alice did might be nothing more than a figment of her imagination.* *She wants to relive the possibility of travel and participate in more activities, and she begins to search again but now from this side of the screen.>>* Like Alice, the students can participate in several initiatives using the Internet. The suggestion to the students is to select a science project to participate with the researchers. The direct public participation in scientific research is known as Citizen Science.

With their teacher and classmates' help, the students can select the most interesting out of the available three different options. Remember that it is important to participate at least two times in one or more initiatives.

The students complete the "***Participation Template***" [E3.1] about their participation in the initiative (before - during - after). It is recommended that the students have read the ***participation template*** before the start of their participation. Once the work is finished, the students should upload the ***participation template*** on their portfolio and submit it for evaluation.

INITIATIVES:

Option A: Plastic 0

Every day, in every corner of the planet, plastic is photographed, described, filmed, and analysed by people like you. We need to quantify plastic and know where it accumulates, to be able to collectively come up with a global solution.

Plastic 0 *is one of the projects included in Seawhatchers, "The Citizen Science web to get involved in* ***marine research****".*

*Students can find all the information about the project here: Plastic 0***.**

Option B: Mind Paths

The Mind Paths experiment uses a video-game in order to create a ***semantic map*** *where volunteers define the distances* ***between words****. Semantic analysis is a major challenge for science and innovation as it is a complex task requiring advanced models and expert validations.*

Option C: Bash the bug

The discovery of antibiotics in the middle of the 20th century helped reduce the number of deaths from infectious diseases globally. Unfortunately, the use of ***antibiotics*** *has led to bacteria becoming more resistant.*

Our research aim is to use a genetics-based approach to improve the ***treatment of Tuberculosis*** *and reduce the spread of bacterial resistance to antibiotics.*

Teaching notes:

More information about Citizen Science in the White Paper on Citizen Science for Europe

Teachers will provide feedback on the ***participation template*** to each student, so that students can improve their work in task 3.3.

B) EVIDENCE:
Evidence: [E3.1] Participation Template

	Assessment instrument: Rubric 3.1 - teacher *Indicators:* PC 1.3.3 [1.3.3.1-1.3.3.2-1.3.3.3] 1.2.1 [1.2.1.1-1.2.2.2]
Resources	*Digital device* *Internet access*
Task Workload	*3 hours*
Task 3.2	**Self-reflection (participation)**
Description	***A) DESCRIPTION:*** (individual) The students will read the fourth chapter of the book "Alice Through the Screen and What Alice Found There". *CHAPTER 4 <<Alice wrote in her diary all the experiences that she lived.>>* Like Alice, the students can write a diary entry [E3.2] reflecting on their participation in the initiative. The students should consider the following points to write their self-reflection: How do you value your experience of participating in the initiatives? How would you evaluate your participation in this experience (positive, negative...)? Do you feel that you have helped someone or contributed to a cause? Did you like participating in this initiative? Would you participate in another initiative? Which one? Do you think that everyone should participate in initiatives like these? Why? What could we do to get people more interested to participate? **Teaching notes:** ***B) EVIDENCE:*** *Evidence:* [E3.2] Diary entry (self-reflection) *Assessment instrument:* Rubric 3.2 - teacher and self assessment *Indicators:* PC 1.3.3 [1.3.3.1-1.3.3.2]
Resources	*Digital device* *Internet access*
Task Workload	*30 minutes*
Task 3.3	**To be continued...**
Description	***A) DESCRIPTION:*** (individual) The students should now know how to participate in an initiative and the benefits that this brings to communities and virtual organisations. The students have to find another initiative to participate. After their participation, the students complete the *Participation Template* [E3.3].

	The students take into consideration the feedback that the teacher had provided in task 3.1 and they should complete this task better than the first time. Once the work is done, the students should upload the ***participation template*** on their portfolio and submit it for evaluation. **Teaching notes:** In this task, the teachers assess each participation template considering whether the student had taken into account the suggestions and comments from his/her feedback in task 3.1. ***B) EVIDENCE:*** *Evidence:* [E3.3] Participation Template *Assessment instrument:* Rubric 3.3 - Teacher *Indicators:* PC 1.3.3 [1.3.3.1-1.3.3.2-1.3.3.3] 1.2.1 [1.2.1.1-1.2.2.2]
Resources	*Digital device* *Internet access*
Workload	*30 minutes*

3.9.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - BREAK ON THROUGH

Task 1.2 - Alice finds her route	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.3.2.1 Adequacy of the use of digital technologies to match personal needs.	The student needs help to find how to buy tickets for the monument/museum.	The student is able to find how to buy tickets online.	The student is able to find how to buy tickets online and check if there are special prices for students/groups.	The student is able to find how to buy online tickets and can compare webs with/without fees.
1.3.2.2 Autonomous use of digital technologies.	The student is not able to use digital technologies without the help of somebody.	The student is able to use digital technologies with only the help of the teacher or by imitating the colleagues.	The student is able to use digital technologies with some help from the teacher/colleagues.	The student is able to use digital technologies autonomously.
4.1.2.1 Appropriate use of spreadsheet to format and calculate data.	The student does not use formulas.	The student only uses one formula (sum, subtraction or link boxes).	The student uses two different formulas (sum, subtraction and/or link boxes).	The student uses all different formulas (sum, subtraction and link boxes) and more options.

4.1.2.4 Relevance of the data and graphs selected according to objectives.	Data is irrelevant and does not answer the questions of the project. There is no connection among the resources.	Some data is not relevant or coherent. More information is required to be able to understand the content.	The data is related and coherent to the project but a more thoughtful selection of criteria is needed. Some data is not well connected or explained.	The data is carefully selected and it is relevant to the project. There has been some thinking before and it is reflected in the work.

ACTIVITY 2 - THE "3 R'S" RULE

Task 2.1 - Circular economy	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.3.1.1 Knowledge of the impact of using digital technologies on the environment.	The student does not know that the use of digital technologies has an impact on the environment.	The student knows the use of digital technologies has an impact on the environment, but he/she can specify only 1 negative and 1 positive effect.	The student knows the use of digital technologies has an impact on the environment, and he/she can specify between 2 and 3 negative and between 2 and 3 positive effects.	The student knows the use of digital technologies has an impact on the environment, and he/she can specify more than 3 negative and more than 3 positive effects.
1.3.1.2 Acting responsibly when using digital technologies and respecting the environment.	The student acts when using digital technologies following only 1 of the indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your	The student acts when using digital technologies following only 2 of the indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your	The student acts when using digital technologies following between 3 or 4 indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your	The student acts when using digital technologies following between 5 or 6 indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your

	digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w	digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w	digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w	digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w

Task 2.2 - What is the 3 R's rule	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.3.1.1 Knowledge of the impact of using digital technologies on the environment.	The student does not know that the use of digital technologies has an impact on the environment.	The student knows the use of digital technologies has an impact on the environment, but he/she can specify only 1 negative and 1 positive effect.	The student knows the use of digital technologies has an impact on the environment, and he/she can specify between 2 and 3 negative and between 2 and 3 positive effects.	The student knows the use of digital technologies has an impact on the environment, and he/she can specify more than 3 negative and more than 3 positive effects.
1.3.1.2 Acting responsibly when using digital technologies and respecting the environment.	The student acts when using digital technologies following only 1 of the indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in	The student acts when using digital technologies following only 2 of the indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in	The student acts when using digital technologies following between 3 or 4 indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in	The student acts when using digital technologies following between 5 or 6 indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in

	single-sided f) Print in b&w	single-sided f) Print in b&w	single-sided f) Print in b&w	single-sided f) Print in b&w

Task 2.3 - Creation of a poster	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
1.3.1.1 Knowledge of the impact of using digital technologies on the environment.	The student does not know that the use of digital technologies has an impact on the environment.	The student knows the use of digital technologies has an impact on the environment, but he/she can specify only 1 negative and 1 positive effect.	The student knows the use of digital technologies has an impact on the environment, and he/she can specify between 2 and 3 negative and between 2 and 3 positive effects.	The student knows the use of digital technologies has an impact on the environment, and he/she can specify more than 3 negative and more than 3 positive effects.
1.3.1.2 Acting responsibly when using digital technologies and respecting the environment.	The student acts when using digital technologies following only 1 of the indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w	The student acts when using digital technologies following only 2 of the indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w	The student acts when using digital technologies following between 3 or 4 indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w	The student acts when using digital technologies following between 5 or 6 indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w

ACTIVITY 3 - MORE SIDES IN CITIZEN SCIENCE

Task 3.1 - Citizen Science	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
1.2.1.1 Knowledge about security strategies and rules to protect personal data.	The student does not know security strategies and rules to protect personal data.	The student knows some security strategies and rules to protect personal data.	The student knows security strategies or rules followed to protect personal data.	The student knows security strategies and rules followed to protect personal data.
1.2.1.2 Use of safety strategies to protect personal data.	The student does not recall security strategies and rules to protect personal data.	The student has difficulties to display security strategies and rules followed to protect personal data.	The student displays security strategies or rules followed to protect personal data.	The student displays security strategies and rules followed to protect personal data.
1.3.3.1 Quality of participation in initiatives to reduce the human impact and protect the environment.	The student's participation does not make sense and must improve according to the objectives and methodology of the initiative.	The student's participation makes sense, but must improve according to the objectives and methodology of the initiative.	The student's participation makes sense, is done according to the objectives and methodology of the initiative but does not include significant elements to it.	The student's participation makes sense, is done according to the objectives and methodology of the initiative and includes significant elements to it.
1.3.3.2 Frequency of the participation in initiatives.	The student participates maximum in 1 initiative 1 time.	The student participates in 2 initiatives, 1 time in each one.	The student participates in 3 initiatives 1 time in each one.	The student participates in 3 initiatives more than 1 time in each one, or in more than 3 initiatives.
1.3.3.3 Use different online synchronous or asynchronous tools.	The student does not use different tools (GoogleDrive Document, chat, comments, mail...).	The student uses the same tools (GoogleDrive Document, chat, comments, mail...) without checking if there are more appropriate ones to use for every need.	The student uses different tools (GoogleDrive Document, chat, comments, mail...) taking some care if there are more appropriate ones to use for every need.	The student uses different tools (GoogleDrive Document, chat, comments, mail...) properly, using each tool for each need (comments for adding some observations to the text, chat for making a real time conversation, mail for communicating to each member, and another one as teacher, different actions...).

Task 3.2 - Self-reflection (participation)	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
1.3.1.1 Knowledge of the impact of using digital technologies on the environment.	The student does not know that the use of digital technologies has an impact on the environment.	The student knows the use of digital technologies has an impact on the environment, but he/she can specify only 1 negative and 1 positive effect.	The student knows the use of digital technologies has an impact on the environment, and he/she can specify between 2 and 3 negative and between 2 and 3 positive effects.	The student knows the use of digital technologies has an impact on the environment, and he/she can specify more than 3 negative and more than 3 positive effects.
1.3.1.2 Acting responsibly when using digital technologies and respecting the environment.	The student acts when using digital technologies following only 1 of the indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w	The student acts when using digital technologies following only 2 of the indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w	The student acts when using digital technologies following between 3 or 4 indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w	The student acts when using digital technologies following between 5 or 6 indications from the listed items from a) to f) a) Do not leave electrical devices on standby b) If you are not going to be using your computer for a while, switch it off rather than leaving it on screensaver mode c) Take chargers out of the wall socket. Never leave them switched on, whether they are for your mobile, your e-reader, your laptop or your digital camera d) Use your printer's Draft mode e) Print in duplex printing than in single-sided f) Print in b&w

Task 3.3 - To be continued...	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4

1.2.1.1 Knowledge about security strategies and rules to protect personal data.	The student does not know security strategies and rules to protect personal data.	The student knows some security strategies and rules to protect personal data.	The student knows security strategies or rules followed to protect personal data.	The student knows security strategies and rules followed to protect personal data.
1.2.1.2 Use of safety strategies to protect personal data.	The student does not recall security strategies and rules to protect personal data.	The student has difficulties to display security strategies and rules followed to protect personal data.	The student displays security strategies or rules followed to protect personal data.	The student displays security strategies and rules followed to protect personal data.
1.3.3.1 Quality of participation in initiatives to reduce the human impact and protect the environment.	The student's participation does not make sense and must improve according to the objectives and methodology of the initiative.	The student's participation makes sense, but must improve according to the objectives and methodology of the initiative.	The student's participation makes sense, is done according to the objectives and methodology of the initiative but does not include significant elements to it.	The student's participation makes sense, is done according to the objectives and methodology of the initiative and includes significant elements to it.
1.3.3.2 Frequency of the participation in initiatives.	The student participates maximum in 1 initiative 1 time.	The student participates in 2 initiatives, 1 time in each one.	The student participates in 3 initiatives 1 time in each one.	The student participates in 3 initiatives more than 1 time in each one, or in more than 3 initiatives.
1.3.3.3 Use different online synchronous or asynchronous tools.	The student does not use different tools (GoogleDrive Document, chat, comments, mail...).	The student uses the same tools (GoogleDrive Document, chat, comments, mail...) without checking if there are more appropriate ones to use for every need.	The student uses different tools (GoogleDrive Document, chat, comments, mail...) taking some care if there are more appropriate ones to use for every need.	The student uses different tools (GoogleDrive Document, chat, comments, mail...) properly, using each tool for each need (comments for adding some observations to the text, chat for making a real time conversation, mail for communicating to each member, and another one as teacher, different actions...).

3.10. CAS: "Locked-in"

3.10.1. SCENARIO INTRODUCTION

Author: Canan Blake (UCL)

"Locked-in" is a project which aims to raise awareness of inclusivity and accessibility in online learning environments and explore the potential of technology to solve problems. Specifically, the scenario introduces the concept of accessibility as a requirement when designing websites and tools and then presents computational thinking activities and how computing helps solving problems for people.

This scenario is designed for **students of 14-16 years old.**

Locked-in consists of **3 activities** (including the introductory activity) and has a **duration of 3 hours and 5 minutes.**

The **learning methodologies** (or instructional approach) that will be used in this scenario are open-source learning and computational thinking problem solving. This approach will be used to introduce computational thinking based problem solving, leading to an understanding of what an algorithm is, what linear search is and how algorithms can be compared on the basis of efficiency. It also illustrates how computational thinking is about more than just creating computer-based solutions. Computing is about solving problems for people.

Students will develop the **work mostly individually although some activities will be/can be carried out collaboratively** following the introduction of the teacher.

The curricular / disciplinary competences involved in the scenario are:
ICT/Computer science.

The Digital Competence is developed through active participation in tasks and providing the required outcomes.

The **assessment** of "Locked-in" is carried out through formative and summative assessment. Formative assessment will help students to get feedback while they are working on their tasks and designs and will help them to address parts of the activities they need to improve. Summative assessment will help accrediting digital competences.

The assessment instrument is presented as rubrics and provides a guide for the teacher and students to have a clear idea of what is required as learning outcomes at the end of each task. Final assessment is reported using the teacher dashboard. Formative evaluation will be carried out during the activity and summative evaluation will be at the end of the activity.

3.10.2. SCENARIO ACTIVITIES AND TASKS

Activity 0	**INTRODUCTION**
Description	In this activity, the teacher is going to introduce the CAS. The teacher will explain the key / main information of the Scenario: This scenario covers the following topics: Accessibility 1. Learn about activating accessibility features in web browsers. 2. Develop an awareness of accessibility requirements and personal needs related to learning materials. 3. Customize web browsers for personal needs. The Locked In Activity 1. Explore the design of an algorithm to allow someone with locked-in syndrome to communicate. 2. Learn about computational thinking, search algorithms and comparing algorithms. Students will work individually and in groups to complete the tasks and use CRISS platform tools to share their work.

Total Activity Workload	5 min
Task 0.1	**Explanation about the Scenario**
Description	A) DESCRIPTION: The teacher will explain to students the principal information of the Scenario: -The Scenario is a general introduction to inclusivity and accessibility issues in the context of online learning environments and computational thinking. It also explores the potential of technology to solve problems. -The Scenario has 3 activities (including the introductory activity) and its duration is 3 hours and 5 minutes. After examining and learning how to activate accessibility features in web browsers students will consider how to help someone with Locked-in syndrome working individually and collaboratively. Then they will consider linear and binary search algorithms and explore their efficiency for different problems. -During the project, students will work with different web browsers and explore web accessibility related issues. Students will work individually and in groups to complete the tasks and use CRISS platform tools to share their work. -The assessment instrument presents the rubric for each indicator included in the scenario. Both the teacher and students will actively take part in assessing work formatively during the activities and the teacher will carry out the summative assessment at the end of the scenario.
Resources	Information about the CAS.
Task Workload	5 min
Activity 1	**ACCESSIBILITY**
Description	The focus of this activity is on accessibility of websites and web tools. The websites and web tools should be designed for everyone, regardless of what hardware or software they are using, what their language is, where they are, or what their abilities are. When the websites are properly designed and developed, everyone, including people with disabilities can use them. In this activity you will examine websites to see if they have any accessibility barriers that make them difficult or impossible for some people to use and investigate ways to customize these websites for personal needs. Accessibility features help people with disabilities to be able to use technology more easily. If websites are made accessible to anyone, this will benefit both individuals and the society. At the end of this activity you will be aware of these personal needs related to accessing learning materials on the web and explore ways to customize these web browsers.
Total Activity Workload	2 hours
Task 1.1	**Web accessibility**
Description	• For this task visit W3C Web Accessibility consortium pages and prepare a short introduction to Web accessibility: https://www.w3.org/WAI/intro/accessibility.php • This web site explains web accessibility related issues in clear terms and provides you with an opportunity to explore issues. One good example is this video (approximately 8 minutes) from WC3 Web Accessibility Initiative: (https://www.w3.org/WAI/perspectives/) The accessibility areas you may want to focus on are:

	• Keyboard compatibility • Clear layout and design • Large links, buttons and controls • Customisable text • Understandable content • Colours with good contrast • Text to speech • Video captions • Voice recognition • Notifications and feedback You are asked to select a website you are familiar with and examine the accessibility barriers in this website under the headings provided above. You will need to activate accessibility settings to be able to see if the website is providing the options. Check two options from the above list and contribute your analysis to the project document, alongside your classmates' analysis. Comment on the analysis of two of your classmates. In your analysis consider if he/she has covered issues adequately and if there are any points you would like to add to their analysis in terms of accessibility barriers included in the web site. You will also receive comments from your classmates and can use these comments to improve your contribution and post a final analysis. ***Evidence:*** [E1.1] A shared document introducing the area of web accessibility and an analysis of a web site in terms of its adherence to accessibility requirements. ***Assessment instrument:*** Assessment for Locked-in.docx Students will assess each others' analysis formatively using peer assessment in addition to formative evaluation from the teacher during the activity and summative evaluation at the end of the scenario (teacher assessment). Peer assessment and Teacher assessment. ***Indicators:*** [E1.1] 5111 and 5112 - 5311 and 5313
Resources	Computers and a selection of browsers, Internet access
Task Workload	1 hour
Task 1.2	**Mouse trapped in a corner**
Description	In this task we will consider ways of making websites easier to use and try an activity suggested by Digital Accessibility Specialist Richard Morton (See https://accessibility.blog.gov.uk/2016/05/19/dump-your-mouse-for-an-hour/) **In his website he introduces the activity as below:** *Dump your mouse for 10 minutes* *What happens if you can't use a mouse effectively or at all: perhaps because of a tremor, or arthritis, or missing limbs, or being blind or visually impaired? You might then have to rely on the keyboard, or assistive technology like speech recognition software, or a switch device, which generally rely on emulating keyboard controls.* *Try visiting a website you like without a mouse or trackpad for just 10 minutes to look for information and see if there are any barriers to your search. If you have a mouse then lock it away and disable your trackpad.* *Here are a few keyboard commands you may need:*

	• *tab – move between focus areas on the page, for example links, form controls, buttons, media player controls. Shift together with Tab does the same in reverse* • *enter or return – activate a link or control* • *spacebar – activate a button or checkbox* • *cursor keys – move between radio buttons; scroll the page up/down and left/right* • *esc – may close a lightbox or overlay* *Compare this with your experience using a mouse or trackpad. For example, when you hover over navigation or links, they often change appearance. Does the same happen when you tab to them? The experience doesn't need to be identical, just equivalent. In other words, there needs to be some visual indication of where the focus is on the screen.* Now explore accessibility settings in the web browser you are using and see if you can adjust these to help people who have: • difficulty in using a mouse, • poor vision, • difficulty of hearing You can learn about customizing accessibility features from many sources and *W3C Web Accessibility Initiative* website is a good place to find information: https://www.w3.org/WAI/users/browsing#keyboard Present your work on customisation of accessibility features for any of the three types of users and provide step by step instructions to help them adjust their web browsers and suggest any additional tools that may help them browse websites easily. Submit your work in the shared folder signposted by your teacher. ***Evidence:*** [E1.2] Online document describing step by step instructions to customize web browsers for one of the special needs people mentioned in the task. ***Assessment instrument:*** Assessment for Locked-in.docx Rubric with descriptors for the level of work on describing instructions to adjust the web browser and any additional tools. This activity will be assessed by the teacher. ***Indicators:*** [E1.2] 5111 and 5112 - 5311 and 5312
Resources	Computers with a selection of web browsers, internet connection, Sound input/output devices, Shared area with a discussion forum and folder to submit work.
Task workload	1 hour
Activity 2	**INTRODUCTION TO LOCKED-IN**
Description	In this activity we are going to look at how computer scientists solve problems. You are going to look at a very human problem. One of the worst medical conditions one can imagine is locked-in syndrome. It leaves you with all your mental abilities intact, but totally paralyzed. It could happen to anyone, out of the blue, as a result of a stroke. If you are one of the lucky ones, you can perhaps blink a single eyelid. Your intelligent mind is locked inside a useless body, able to sense everything but unable to communicate. This activity is about how a computer scientist could help someone with locked-in syndrome…but it isn't about technology. It is about computational thinking. You are going to explore how to help a person with locked-in syndrome to communicate.

	A massively uplifting book is 'The Diving Bell and the Butterfly'. It is the autobiography of Jean-Dominique Bauby, written after he woke up in a hospital bed with locked-in syndrome. In the book, he describes life with locked-in syndrome. Bauby did have a way to communicate not only to write the book but also to talk with medical staff, friends and family. All he could do was blink one eyelid. He did it without any technological help at all. He just had a human helper to write down his words. How did he do it?
Total Activity Workload	1 hour
Task 2.1	**Exploring ways to communicate**
Description	1) Suggest ways Bauby could have communicated with the helper by blinking. Share your idea in the Padlet. The general link for the padlet is: https://padlet.com/. However your teacher will create a shared area for you to post your ideas. 2) Discuss the advantages and disadvantages of each suggestion, again using Padlet. 3) Try a few of these suggestions to see what happens and how long it takes to write a sentence, for example: 'Computing is about solving problems for people'. 4) Can you think of any improvements? Can you come up with a solution that really works? ***B) EVIDENCE:*** [E2.1] Students will produce a written search algorithm to enable someone with a locked-in syndrome to communicate with others and submit this to the CRISS shared area. ***Assessment instrument:*** Assessment for Locked-in.docx Teacher assessment. ***Indicators:*** [E2.1] 5321 and 5324
Resources	Access to Bauby's book would be beneficial for students to see the actual book.
Task Workload	1 hour

3.10.3. ASSESSMENT INSTRUMENTS

ACTIVITY 1 - ACCESSIBILITY

Task 1.1 - Web accessibility	NOVEL	APPRENTICE	ADVANCED	EXPERT
	1	2	3	4
5.1.1.1 Awareness of the existence of the variety of technological tools and approaches	The student is not aware of the existence of the variety of technological tools and approaches. The student has no idea of their	The student is aware of some of the existence of the variety of technological tools and approaches but not of its continuous	The student is aware of the existence of the variety of technological tools and approaches. The student has some idea of their	The student is aware of the existence of the variety of technological tools and approaches and their continuous evolution.

and of their continuous evolution.	continuous evolution.	evolution.	continuous evolution.	
5.1.1.2 Critical analysis of the adequacy of different tools in relation to a purpose.	The student is unable to make a critical analysis of different tools in relation to a purpose and he/she always uses the same tools.	The student is able to make a critical analysis of different tools in relation to a purpose but he/she always uses the same tools.	The student is able to make a critical analysis of different tools in relation to a purpose. The student always uses the same tools according to his/her needs.	The student is able to make a critical analysis of different tools in relation to a purpose. The student uses different tools according to his/her needs.
5.3.1.1 Awareness of the personal needs related to the learning process.	The student is not aware of the personal needs related to the learning process.	The student is able to reflect and point out the personal needs related to the learning process only with a strong external support.	The student needs some help to reflect and point out personal needs related to the learning process.	The student is able to reflect and point out personal needs related to the learning process autonomously.
5.3.1.3 Updating new options to improve the personal environment when necessary.	The student is not aware of the need for new options and does not update them to improve the personal learning environment.	The student is aware of the need of some new options but is not able to update them properly to improve the personal learning environment.	The student is aware of the need of some new options and is able to update most of them to improve the personal learning environment.	The student is aware of the need of the most relevant new options and is able to update them all appropriately to improve the personal learning environment.

Task 1.2 - Customisation for Personal Needs	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
5.1.1.1 Awareness of the existence of the variety of technological tools and approaches and of their continuous evolution.	The student is not aware of the existence of the variety of technological tools and approaches. The student has no idea of their continuous evolution.	The student is aware of some of the existence of the variety of technological tools and approaches but not of its continuous evolution.	The student is aware of the existence of the variety of technological tools and approaches. The student has some idea of their continuous evolution.	The student is aware of the existence of the variety of technological tools and approaches and their continuous evolution.
5.1.1.2 Critical analysis of the adequacy of different tools in relation to a purpose.	The student is unable to make a critical analysis of different tools in relation to a purpose and he/she always uses the	The student is able to make a critical analysis of different tools in relation to a purpose but he/she always uses the same tools.	The student is able to make a critical analysis of different tools in relation to a purpose. The student always uses the same tools	The student is able to make a critical analysis of different tools in relation to a purpose. The student uses different tools

	same tools.		according to his/her needs.	according to his/her needs.
5.3.1.1 Awareness of the personal needs related to the learning process.	The student is not aware of the personal needs related to the learning process.	The student is able to reflect and point out the personal needs related to the learning process only with a strong external support.	The student needs some help to reflect and point out personal needs related to the learning process.	The student is able to reflect and point out personal needs related to the learning process autonomously.
5.3.1.2 Selection of some options to customise the personal digital environment.	The student is not able to select any option to customize the personal digital environment despite the support of the teacher.	The student is able to select just some basic options to customize the personal digital environment with the support of the teacher.	The student is able to select some of the options to customize the personal digital environment without any support.	The student is able to use all the relevant options to customize the personal digital environment autonomously.

ACTIVITY 2 - INTRODUCTION TO LOCKED-IN

Task 2.1 - Exploring ways to communicate	**NOVEL**	**APPRENTICE**	**ADVANCED**	**EXPERT**
	1	**2**	**3**	**4**
5.3.2.1 Knowledge of the different characteristics of the computational thinking process.	The student does not know the basic characteristics of computational thinking.	The student knows some basic characteristics of computational thinking but is not able to apply them correctly.	The student knows most of the characteristics of computational thinking and is able to apply them with some errors.	The student knows the most suitable characteristics of the computational thinking process and can apply without errors.
5.3.2.4 Application of the computational thinking process in different situations.	The computational thinking process is not applied in any situation.	The computational thinking process is barely applied in one single situation.	The computational thinking process is applied in more than one situation with some difficulties.	The computational thinking process is applied in different situations without any problems.

3.11. CAS: “Our Virtual Museum”

3.11.1. SCENARIO INTRODUCTION

Authors: Kristina Posavec, Klara Bilić Meštrić

Student ages: 10-16

Curricular Areas: All school subjects

Themes:

Tags:

Work dynamics: Collaborative and Collaborative and Individual and Individual and

Workload:

Activities: 6 (5)

Instructional approach: Project-based learning

Available Language: English

Description:

“Our Virtual Museum” is a scenario aimed at creating a museum with the Magellan tool, enabling students to develop competences such as searching for information, creating digital content, sharing results and collaboratively working on a joint project.

This scenario is generic, and it will allow students to work on any topic of their choosing (art, history, geography, literature, science, languages, etc-), whatever they want to see the exhibition of in a museum. The idea is that students use the Magellan tool and learn how to work with a 2D (3600 photos and 3D - for advanced level) application.

The scenario is designed for students aged 10 to 16.

"Our Virtual Museum" consists of 6 activities and the proposed time for the scenario is:

The proposed methodology is project-based learning in cooperative groups, but each teacher can decide the type of grouping that best fits the group and methodology. Most of the activities are suggested as group activities, but they can also be carried out individually.

Digital competence is acquired through suggested tasks and uploading of evidence to the digital portfolio.

Link to video tutorials on how to use Magellan tool is below:

https://ct-tools.exus.co.uk/

3.11.2. SCENARIO ACTIVITIES AND TASKS

0 Activity: Introduction

Workload: 0 hr : 10 min

Description:

In this activity, the teacher is going to introduce the CAS. The teacher will explain the key information of the Scenario: what the students are required to do (the creation of a virtual museum) and how they will work.

Before starting the activity and tasks, the teacher will give the students a copy of the rubrics that will be used in the scenario so that they know what to expect and search as well as the minimum requirements to complete the task. Students will be informed that at the end of the scenario they will have to deliver an essay in a digital form in which they will answer the questions sent by the teacher. This will include a review of everything learned.

0.1 Task Presentation of the scenario

Workload: 0 hr : 10 min

Description:

The teacher will explain to the students the main information of the Scenario:

The goal of this scenario is the creation of a virtual museum in a Magellan application related to the subject a teacher is conducting.

Students will have to investigate and learn about the particularities of a theme within the scope of a subject about which they decided to create a virtual museum.

The Scenario has 7 activities (the introduction activity plus 6 other activities), and it lasts for cca. -- hours (-- hourly sessions, flexible depending on the schedule). During these activities, the students will conduct research, distinguish relevant from irrelevant information found on the Internet, learn about the authorship rights and creative commons license, edit multimedia resources (pictures, videos, audio, text, etc.), create digital content and develop metacognitive skills (reflection of the whole process).

Students will work in a collaborative way in groups and each student will be assigned a role and its responsibilities.

The assessment is carried out through formative evaluation by teachers, while students can take part in this process through self-evaluation and peer-evaluation. The assessment will be carried out through rubrics. Assessment is planned after each activity and in some cases, the assessment is planned after certain tasks.

Indicators: none

1 Activity: Creating collaborative work environment

Description:

This activity introduces the theme of the scenario. In this case, it refers to the creation of a museum with the Magellan tool in a cooperative way, including information chosen by the professor in collaboration with students and according to the content of the subject. In this activity, students will form the working groups and choose the theme of their museum.

1.1 Task: Creating work groups

Workload: 0 hr : 20 min

Description:

Students can create groups by themselves, but teachers can also do it. In an ideal situation, each group should have 4 members with different roles that can be changed during the scenario. These roles can be different if the professor decides so.

CURATOR: makes sure that all the voices in the group are heard. Centralizes and organises the work in each task. “Runs the museum”

MULTIMEDIA EDITOR: makes sure that all multimedia materials are properly edited and organized

WRITER: makes sure that all textual materials are correctly written and contain all relevant information

RESEARCHER: helps the group discover relevant information and use its potential to improve creativity and constructive work.

Each student takes a role in the group depending on the task. In this way, all members of the group can take a different role at least once. The roles in the group are not static: students can adopt different roles in different moments during the cycle of the scenario. All role changes have to be communicated to the teacher.

After each task, each member of the group will write a message (Story/Evidence) to the teacher and inform her/him about the work that was completed during the session. The whole group will collaborate in the creation of a summary text of the work at school or at home, if it was decided so. The teacher will use these messages to prepare a follow-up of the work for each group.

Once the groups are formed, together they create their first “Story”/Evidence as a document where they will present the members of the group and their duties.

Each student will send his or her “Story”/Evidence.

Indicators:

- Area: 2. Digital communication and collaboration, Sub Competence: 2.1. Communicating through digital technologies, Per Criteria: 2.1.1 To interact properly through appropriate digital technologies and to share data, information and digital content in a variety of forms, ways and contexts., Indicator: 2.1.1.1 SECONDARY Use of the appropriate language for a specific audience (e.g. age, professional role, cultural sensibilities, relationship, etc.).

- Area: 2. Digital communication and collaboration, Sub Competence: 2.1. Communicating through digital technologies, Per Criteria: 2.1.1 To interact properly through appropriate digital technologies and to share data, information and digital content in a variety of forms, ways and contexts., Indicator: 2.1.1.2 SECONDARY Adequate behaviour when using specific digital tools and platforms (e.g. blog, chat, networks, e-mail, etc.).
- Area: 2. Digital communication and collaboration, Sub Competence: 2.2. Collaborating through digital technologies, Per Criteria: 2.2.1 To collaborate using digital technologies to develop projects and create resources and knowledge., Indicator: 2.2.1.1 SECONDARY Coherence and viability of the plan.
- Area: 2. Digital communication and collaboration, Sub Competence: 2.2. Collaborating through digital technologies, Per Criteria: 2.2.1 To collaborate using digital technologies to develop projects and create resources and knowledge., Indicator: 2.2.1.2 SECONDARY Adequacy of the digital tools for the planning and the development of the work.

1.2 Task: Google Drive folder

Workload: 0 hr : 15 min

Description:

The professor will explain the importance of having a folder accessible to all members of the group where all the group work will be stored. This is the moment to talk about different ways of collaborating on and sharing documents, presentations, spreadsheets etc. in Google Drive folders (or other cloud programmes typically used in schools). The best ways of collaborating and sharing work on Google Drive (or other cloud) will be discussed and then the best option for future work will be chosen, so that it remains private and secure, if that is what we want.

Each group will create a Google Drive folder to collaborate in the project. Every member of the group will have a permission to edit shared documents and upload everything that they find interesting in the folder. All teachers who participate in the scenario have to be included in the Google Drive folder so that they can follow the

development of the work of each group and member of the group. Teachers will guide students on how to correctly share folders and documents.

As evidence, each student will have to create a “Story”/Evidence with explanation on how the folder is organized and shared, with a short reflection on the collaboration with Google Drive.

Attachments: No files attached

Indicators:

- Area: 3. Search and manage digital information, Sub Competence: 3.2. Managing data, information and digital content, Per Criteria: 3.2.1 To organise, store and retrieve data, information and content in digital environments., Indicator: 3.2.1.1 SECONDARY Use of a coherent, clear and efficient system to manage, store or retrieve information.
- Area: 1. Digital Citizenship, Sub Competence: 1.1. Creating and managing digital identity with privacy, and taking care of health and well-being, Per Criteria:1.1.2 To create, manage and protect digital identities. To take care of physical and psychological health and well-being., Indicator: 1.1.2.1 SECONDARY Management of the verification of the privacy policies.
- Area: 1. Digital Citizenship, Sub Competence: 1.1. Creating and managing digital identity with privacy, and taking care of health and well-being, Per Criteria:1.1.2 To create, manage and protect digital identities. To take care of physical and psychological health and well-being., Indicator: 1.1.2.2 SECONDARY Strategy used for guarding against identity theft and scams that try to access private information online.
- Area: 3. Search and manage digital information , Sub Competence: 3.2. Managing data, information and digital content, Per Criteria: 3.2.1 To organise, store and retrieve data, information and content in digital environments., Indicator: 3.2.1.3 SECONDARY Coherence of the own strategy with the one adopted by the collaborative environment.

2. Activity: Choosing the theme of the museum

Description:

In this activity, students will have to propose a theme of their museum. This task can be performed by the teacher in collaboration with students in several ways. The teacher can propose the theme, work out the theme with students or let the students decide on the theme of their museum.

In the first task, students will have to brainstorm ideas on what they want their museum to be about. After that, they will have to perform several searches on the Internet, plan what they want to search and how to do it. They will share the information found with others members of the group in a Google document shared by all members of the group. Finally, they will share it with the rest of the class.

2.1 Task: Brainstorming ideas

Workload: 0 hr : 15 min

Description:

In this group task, students will brainstorm and share their ideas about what they want to include in their museum. The teacher can monitor and direct students' ideas. Teacher will also share a Padlet/Google/Office document with students that allows all groups to share their ideas with each other and the teacher.

The students can use the CRISS Social Network for this task.

Specifically, the teacher can create a dedicated private group within the CRISS Social Network for each working group and invite relevant students to become members of it.

Each student has to participate minimum 3 times in his/her group and there are two ways to participate and express his/her opinion:

- write a post update within the group to propose a new idea to be included in the museum,
- comment or reply to a comment to other post updates explaining why he/she agrees or disagrees.

The curator of the working group will select the list of the three most interesting ideas. An idea will be considered as good, if there are more positive than negative comments and replies.

Teachers will also share a Padlet/Google/Office document with students. In this way, the selected best ideas for each working group can be shared among students and the teacher.

Evidence of this task will be the screenshot of the Padlet board with students' ideas or embedded link to the document.

Attachments: No files attached

Indicators:

- Area: 2. Digital communication and collaboration, Sub-competence: 2.2. Collaborating through digital technologies, Per Criteria: 2.2.2 To collaborate using digital technologies to develop projects and create resources and knowledge., Indicator: 2.2.2.2 SECONDARY Quality of interventions: argumentation of one's own interventions and consideration of the interventions of the group.
- Area: 2. Digital communication and collaboration, Sub-competence: 2.2. Collaborating through digital technologies, Per Criteria: 2.2.3 To collaborate using digital technologies to develop projects and create resources and knowledge., Indicator: 2.2.3.4 SECONDARY Equitable and efficient communication.

2.2 Task: Searching for information

Workload: 0 hr : 45 min

Description: In this task, students will explore the theme they decided to present in the museum. They will carefully explore the topic by making sure to include relevant data and cite the sources they have used. They will share a document as a story/evidence, in which they will describe the search process and present the relevant data acknowledging the sources they have used for this task. They will upload

the document on the platform or share the link via the platform if a document is created in a cloud, e.g. Google Disk or Office.

Attachments: No files attached

Indicators:

- Area: 1. Digital Citizenship, Sub-competence: 1.3. Engaging in citizenship using digital technologies, Per Criteria: 1.3.1 To engage in improving social well-being and environmental sustainability and to enhance personal empowerment using digital technologies., Indicator: 1.3.1.1 SECONDARY Knowledge of the impact of using digital technologies on the environment.
- Area: 1. Digital Citizenship, Sub-competence: 1.3. Engaging in citizenship using digital technologies, Per Criteria: 1.3.1 To engage in improving social well-being and environmental sustainability and to enhance personal empowerment using digital technologies., Indicator: 1.3.1.2 SECONDARY Acting responsibly when using digital technologies and respecting the environment.

3. Activity: Creating and collecting multimedia resources

Description:

In this activity students will search and edit multimedia materials for their virtual museum. Teachers will introduce students with Creative Commons licences and explain the importance of copyrights when reusing, copying and editing materials which they find on the Internet.

Students will collect the materials they need (texts, pictures, images, videos, audio materials, etc.) and prepare them for their virtual museum. After collecting and preparing materials students will watch a short movie clip about Common Creative licence and write a reflexive essay on the rights perspective highlighting the importance of the proper use and acknowledgment of copyrighted materials and copyright claims for students' own materials.

In this activity, the teacher and students will decide on the ICT tools which they will use for editing multimedia materials.

All materials and essays will be uploaded on the CRISS platform using a story/evidence tool and submitted to the teacher for evaluation.

3.1 Task: Multimedia search

Workload: 0 hr : 45 min

Description:

In this task, students will explore the multimedia pertinent to the theme they decided to present in the museum. They will search the internet in order to find the multimedia (video, audio, images) relevant for the theme and the information they decided to present in their museum. Similar to the previous task, they need to cite the sources they have used. As story/evidence they will share a table listing all the multimedia sources they have used for the museum. The table will contain the multimedia descriptions and the sources they have used (see the Table 1)

Table 1.

Multimedia type	URL address	Date of access

They will upload the table on the platform or share the link via the platform if a table is created in a cloud, e.g. Google Disc or Office.

Attachments: Table 1.

Indicators:

- Area: 3. Search and manage digital information , Sub-competence: 3.1. Planning, searching and critically selecting data, information and digital content, Per Criteria: 3.1.3 To plan, search and critically select data, in order to find the right information and digital content., Indicator: 3.1.3.1 SECONDARY Quality, reliability, comprehension and adequacy of the information found.
- Area: 3. Search and manage digital information , Sub-competence: 3.1. Planning, searching and critically selecting data, information and digital

content, Per Criteria: 3.1.3 To plan, search and critically select data, in order to find the right information and digital content., Indicator: 3.1.3.2 SECONDARY Use of different sources searching the same information.

- Area: 3. Search and manage digital information , Sub-competence: 3.2. Managing data, information and digital content, Per Criteria: 3.2.2 To organise, store and retrieve data, information and content in digital environments., Indicator: 3.2.2.3 SECONDARY Efficient and coherent management of the resources.

3.2 Task: Multimedia editing

Workload: 2 hr : 0 min

Description:

Students will edit the multimedia materials which they found in the previous tasks (images, videos, audio materials, texts, etc.). At this stage, students are preparing these materials for their virtual museum. For editing, they can use some of the proposed ICT tools or teachers can suggest which programme to use.

Students will upload a compressed (zipped) folder with all edited materials on the CRISS platform using the Story/Evidence tool.

Indicators:

- Area: 4. Digital content creation, Sub-competence: 4.1. Developing digital content, Per Criteria: 4.1.5 To produce and to edit digital content in different formats using the appropriate digital technologies., Indicator: 4.1.5.1 SECONDARY Integration of the elements in different formats into a digital document (text, images, video, etc.) using the appropriate options of the tool selected.
- Area: 4. Digital content creation, Sub-competence: 4.1. Developing digital content, Per Criteria: 4.1.3 To produce and to edit digital content in different formats using the appropriate digital technologies., Indicator: 4.1.3.4 SECONDARY Technical quality of the images, sounds and videos.

- Area 4. Digital content creation Sub-competence 4.2. Developing creativity using digital technologies 4.2.2 Create representations of knowledge using digital formats (e.g. maps, diagrams, schemes, conceptual maps, etc.). Indicator: 4.2.2.1 SECONDARY Selection of the best tool for creating representations according to the objectives.
- Area 4. Digital content creation Sub-competence 4.2. Developing creativity using digital technologies 4.2.2 Create representations of knowledge using digital formats (e.g. maps, diagrams, schemes, conceptual maps, etc.). Indicator: 4.2.2.2 SECONDARY Appropriate use of the different tools to represent knowledge.
- Area 5. Digital problem solving Sub-competence 5.1. Applying digital solutions to identified needs 5.1.1 Be aware of the existence of a variety of digital solutions, evaluate critically the adequacy of each of them in relation to a specific task and be able to identify and use the appropriate one in relation to the purposes (e.g. tools, devices, applications, software, etc.). Indicator 5.1.1.2 SECONDARY Critical analysis of the adequacy of different tools in relation to a purpose.
- Area 5. Digital problem solving Sub-competence 5.1. Applying digital solutions to identified needs 5.1.1 Be aware of the existence of a variety of digital solutions, evaluate critically the adequacy of each of them in relation to a specific task and be able to identify and use the appropriate one in relation to the purposes (e.g. tools, devices, applications, software, etc.). Indicator 5.1.1.3 SECONDARY Knowledge of the appropriate tool for a specific purpose and how to use it.

3.3 Task: Copyright

Workload: 0 hr : 20 min

Description:

In this task students need to reflect on the previous two tasks - the process of collecting, using and sharing data (multimedia, information, etc) on the internet. The

teacher can reflect on previous tasks and ask students how they feel when someone takes their work and appropriates it (not necessarily in the online context). The teacher can also use the following movie about Creative Commons in order to address these questions and start a discussion: https://www.youtube.com/watch?v=8YkbeycRa2A

Upon seeing the movie and the classroom discussion, students will write a reflexive essay on the rights perspective highlighting the importance of the proper use and acknowledgment of copyrighted materials and copyright claims for students' own materials.

Indicators:

- Area: 1. Digital Citizenship, Sub Competence: 1.2. Protecting data and digital systems and being ethical and responsible when using digital technology, Per Criteria: 1.2.3 To protect personal data and digital systems. To be aware of the variety of ways to publish digital content, and to be ethical and responsible when using digital technologies., Indicator: 1.2.3.1 SECONDARY Knowledge about the legal and ethical dimensions of respecting others' work.
- Area: 1. Digital Citizenship, Sub-competence: 1.2. Protecting data and digital systems and being ethical and responsible when using digital technology, Per Criteria: 1.2.3 To protect personal data and digital systems. To be aware of the variety of ways to publish digital content, and to be ethical and responsible when using digital technologies., Indicator: 1.2.3.2 SECONDARY Ethical and responsible behavior respecting the creators and users of others' work.

4. Activity: Creating a museum in Magellan

Description:

In this activity teachers will introduce Magellan applications to their students. He/she will show the students how to use Magellan and its functionalities in order to create a virtual museum based on their search, ideas, materials and storyboard - i.e., everything they created in previous activities and tasks.

The teacher will assess ICT skills of his/hers students and based on his/her assessment, the teacher will use the basic or intermediate level of Magellan application.

After an introduction to Magellan, students will have to create a storyboard in order to draw a plan for their museum. In this activity, students will need to have a clear idea of what their museum should look like and the content it should contain. Storyboard will help the students visualise their museum in simple terms and present it to the teacher and classmates.

After they have drawn a sketch of their museum in Storyboard, students will individually or in groups create a virtual museum space (one or more rooms, based on their storyboard) and add the already prepared multimedia material. In Magellan, students will add navigation buttons and screens which will guide their virtual tourists through the museum.

When students finish their virtual museum, they will publish it and get a shareable link which they will upload to the CRISS platform through evidence/story tool to teacher for evaluation.

4.1 Task: Explanation of Magellan

Workload: 0 hr : 45 min

Description:

In this task teacher will explain how to work with the Magellan tool. Teachers will provide students with basic or intermediate levels of application based on students' ICT skills.

There is no evidence.

Link to video tutorials on how to use Magellan tool is below:

https://ct-tools.exus.co.uk/hr/home-hr/

Indicators: none

4.2 Task: Creating storyboard

Workload: 0 hr : 45 min

Description:

In this task, students will use a Portabily in order to create a storyboard for their museum. They will present their idea using frames in order to give a sense of spatial, visual and informational continuity of the museum. They will submit the Portabily as a "story"/evidence. Alternatively, students can draw the storyboard as a comic, take a photo and upload it as an image file. This way, however, they won't be able to include audio files in the storyboard.

Indicators:

- Area: 3. Search and manage digital information , Sub-competence: 3.2. Managing data, information and digital content, Per Criteria: 3.2.1 To organise, store and retrieve data, information and content in digital environments., Indicator: 3.2.1.2 SECONDARY Use different safe strategies (cloud, computer memory, external memory, etc.).
- Area: 3. Search and manage digital information , Sub-competence: 3.2. Managing data, information and digital content, Per Criteria: 3.2.2 To organise, store and retrieve data, information and content in digital environments., Indicator: 3.2.2.2 SECONDARY Efficient and coherent management of tools and devices.
- Area: 4. Digital content creation, Sub-competence: 4.1. Developing digital content, Per Criteria: 4.1.1 To produce and to edit digital content in different formats using the appropriate digital technologies., Indicator: 4.1.1.3 SECONDARY Format quality of the text and the tables (wording, fonts, size, etc.).
- Area: 4. Digital content creation, Sub-competence: 4.1. Developing digital content, Per Criteria: 4.1.1 To produce and to edit digital content in different formats using the appropriate digital technologies., Indicator: 4.1.1.4 SECONDARY Relevance of the information according to the objectives.
- Area: 3. Search and manage digital information , Sub-competence: 3.2. Managing data, information and digital content, Per Criteria: 3.2.1 To organise, store and retrieve data, information and content in digital environments.,

Indicator: 3.2.1.1 SECONDARY Use of a coherent, clear and efficient system to manage, store or retrieve information.

4.3 Task: Creating and publishing museum space

Workload: 0 hr : 90 min

Description:

In this task students will start working with the Magellan application and build their museum space. They will create rooms based on the Storyboards they have presented earlier. They will use a screen module to set the rooms of their museum, where each choice will lead to an illustrated text or a media like a sound or a video giving details about an element in this room. After creating the museum space, the students will add prepared multimedia materials (texts, images, videos, audio materials, etc.) to museum rooms.

Finally, the students will publish their virtual museum which they created in the Magellan application. After the project is finished, every student will get a sharable link to his/her project and upload it on the CRISS platform as a “story”/evidence.

Indicators:

- Area 4. Digital content creation Sub-competence 4.1. Developing digital content 4.1.1 Generate or modify digital content composed by text and tables, taking into account the design, structure, wording, etc. Indicator 4.1.1.2 SECONDARY Content quality (argumentation, syntax, cohesion, clarity, etc.).
- Area 4. Digital content creation Sub-competence 4.2. Developing creativity using digital technologies 4.2.1 Generate new information, be creative and express oneself when elaborating digital content in different formats. Indicator 4.2.1.1 SECONDARY Originality of the concepts when generating new digital content.

- Area 4. Digital content creation Sub-competence 4.2. Developing creativity using digital technologies 4.2.1 Generate new information, be creative and express oneself when elaborating digital content in different formats. Indicator 4.2.1.2 SECONDARY Originality of the aesthetic.
- Area 4. Digital content creation Sub-competence 4.2. Developing creativity using digital technologies 4.2.1 Generate new information, be creative and express oneself when elaborating digital content in different formats. Indicator 4.2.1.3 SECONDARY Development of a personal style.
- Area 4. Digital content creation Sub-competence 4.2. Developing creativity using digital technologies 4.2.1 Generate new information, be creative and express oneself when elaborating digital content in different formats. Indicator 4.2.1.4 SECONDARY Adequacy of the content taking into account the goals of the project.
- Area 5. Digital problem solving Sub-competence 5.2. Solving technical problems 5.2.2 Be able to find appropriate solutions to solve technical problems (in software or hardware) or ask for help when problems cannot be solved. Indicator 5.2.2.2 SECONDARY Adoption of a solution by oneself, or asking for help.
- Area 5. Digital problem solving Sub-competence 5.3. Programming and configuring digital tools, applications and devices 5.3.1 Customise digital environments depending on personal needs (e.g. accessibility, settings, additional components, etc.). Indicator 5.3.1.2 SECONDARY Selection of some options to customise the personal digital environment.

5. Activity: Presenting our museum

Description:

In this activity, the teacher will ask the students to create a multimedia presentation (PowerPoint, Portabily, Prezi, etc.) about what they have done during this project. Each group will have to describe the process of creating a museum. The final products

of this activity are a multimedia presentation which will be shown to the classmates and the teacher and a reflective essay.

5.1 Task: Creating presentation

Workload: 0 hr : 30 min

Description:

Students will create a multimedia presentation of their work which will include pictures, screenshots and texts. Students will upload their presentation on the CRISS platform.

Indicators: none

5.2 Task: Presenting the museum

Workload: 0 hr : 45 min

Description:

Each group of students will present their presentation in front of the class and the teacher. Teachers will evaluate their presentation according to the created rubrics.

Indicators:

- Area 4. Digital content creation Sub Competence 4.2. Developing creativity using digital technologies 4.2.2 Create representations of knowledge using digital formats (e.g. maps, diagrams, schemes, conceptual maps, etc.). Indicator 4.2.2.3 SECONDARY Coherence between content and representation.
- Area 4. Digital content creation Sub Competence 4.2. Developing creativity using digital technologies 4.2.2 Create representations of knowledge using digital formats (e.g. maps, diagrams, schemes, conceptual maps, etc.). Indicator 4.2.2.4 SECONDARY Format quality of the representations (simple, clear, etc.).
- Area 4. Digital content creation Sub Competence 4.2. Developing creativity using digital technologies 4.2.1 Generate new information, be creative and express oneself when elaborating digital content in different formats. Indicator

4.2.1.1 SECONDARY Originality of the concepts when generating new digital content.

5.3 Task:Self-reflection

Workload: 0 hr : 30 min

Description:

Each student will write an essay (400 words - 1 page). The essay can address the following questions drawing on topics worked on throughout the project:

- What has he/she learned in the project in relation to the creation of digital content and searching for digital information?
- What was it like to work with the Magellan tool?
- What would the students change (in the tool) and why?
- Alternatively, in more advanced groups, students can reflect on the respective roles they have had in the group and how each one influenced their responsibilities in the project.
- The subject-specific topics (museum theme related topics)

Once the self-reflection is finished students will upload the essay to the e-portfolio as "story"/evidence

Indicators:

- Area: 4. Digital content creation, Sub Competence: 4.1. Developing digital content, Per Criteria: 4.1.1 To produce and to edit digital content in different formats using the appropriate digital technologies., Indicator: 4.1.1.2 SECONDARY Content quality (argumentation, syntax, cohesion, clarity, etc.).
- Area: 4. Digital content creation, Sub Competence: 4.1. Developing digital content, Per Criteria: 4.1.1 To produce and to edit digital content in different formats using the appropriate digital technologies., Indicator: 4.1.1.4 SECONDARY Relevance of the information according to the objectives.

Appendix 1: CRISS Digital Competence Operational Concept.

AREA 1	1. Digital Citizenship Manage digital identities, health and well-being, personal and data protection, and engage in citizenship.	
Sub-competence	**Performance criteria**	
1.1. Creating and managing digital identity with privacy, health and well-being To create, manage and protect digital identities. To take care of physical and psychological health and well-being.	1.1.1	Be able to develop one's own digital identity, in terms of presence and visibility in the network, for different purposes (e.g. traceability, social network profiles and legal conditions, e-portfolio, CV, etc.).
	1.1.2	Be able to protect one's own digital identity (e.g. verify privacy policy, traceability, use safety websites, passwords and Wi-Fi connections, update software, etc.).
	1.1.3	Adopt healthy habits in relation to ergonomics and to prevent other physical risks (e.g. posture, hours, radiation, decibels, etc.).
	1.1.4	Be aware of psychological and emotional risks generated by the inappropriate use of digital technologies and Internet (e.g. cyberbullying, sexting, addiction, violent content, etc.) and ways to avoid them.
1.2. Protecting data and digital systems and be ethical and responsible when using digital technology To protect personal data and digital systems. To be aware of various ways to publish digital content, and to be ethical and responsible when using digital technologies.	1.2.1	Know how to protect personal data that can be compromised in digital environments (e.g. access rights, right of cancellation, etc.).
	1.2.2	Protect devices and digital systems (e.g. proper switch off, electrical surge, etc.), and against external threats (e.g. using antivirus, passwords, etc.).
	1.2.3	Know image and author rights and different forms of digital content diffusion (e.g. copyright, copyleft, creative commons, licences, etc.) so as to use them ethically and responsibly (e.g. citations, etc.).
1.3. Engaging in citizenship while using digital technologies To engage in improving social well-being and environmental sustainability and to enhance personal empowerment using digital technologies.	1.3.1	Be aware of how to use digital technologies in a sustainable way for the environment (e.g. ways to save energy, know the impact of technology on the environment, recycle, etc.).
	1.3.2	Enhance citizen autonomy using digital technologies (e.g. reserve museum tickets, train tickets, renew or reserve library books, medical appointment, co-responsible processes, etc.).
	1.3.3	Participate actively through digital technologies in social improvement and environment sustainability initiatives (e.g. contribute to virtual communities, support social platforms and organizations, etc.).

AREA 2	2. Digital communication and collaboration Interact in digital environments, share content, and collaborate in projects through digital technologies.	
Sub-competence	**Performance criteria**	
2.1. Communicating through digital technologies To interact properly through appropriate digital technologies and to share data, information and digital content in a variety of forms, ways and contexts.	2.1.1	To adapt communication to the specific audience and to be aware of cultural and generational diversity in digital environments, also being aware of netiquette.
	2.1.2	Communicate and publish through different and adequate digital tools and platforms (e.g. e-mail, blogs, web page, wikis, etc.).
	2.1.3	Manage different communication systems to interact and share information with others (e.g. forums, store and share files in the cloud, send attachments, upload photos, etc.).
2.2. Collaborating through digital technologies To collaborate using digital technologies to develop projects and create resources and knowledge.	2.2.1	Plan, organize and manage collaborative work for operating agreements, distribution processes and tasks of the group, using suitable collaborative digital tools (e.g. time-management and scheduling on-line calendar).
	2.2.2	Participate actively in the group tasks through collaborative virtual environments (e.g. different instant messaging on-line chat, video conferencing, collaborative networks, etc.).
	2.2.3	Act ethically, contributing to the cohesion of the team with balanced and efficient communication, respecting the views of others and managing the group problems or conflicts when working in digital environments.

AREA 3	3. Search and manage digital information Search and select through digital technologies, manage data, information and digital content.	
Sub-competence	**Performance criteria**	
3.1. Planning, searching and critically selecting data, information and digital content To plan, search and critically select data, in order to find the right information and digital content.	3.1.1	Plan an information search based on specific needs and conditions (e.g. time, goals, constraints, etc.).
	3.1.2	Implement a coherent search strategy using appropriate keywords, different information search tools (e.g. search engines, directories, etc.) and search filters (e.g. Boolean operators, searcher configurations, etc.).
	3.1.3	Use appropriate criteria to select the found information (e.g. comprehension, quality, adequacy, etc.) and contrast critically different sources and verify their reliability.
3.2. Managing data, information and digital content To organise, store and retrieve data, information and	3.2.1	Adopt a system for management, storage and retrieval of information (e.g. folders, connection between devices, use the cloud, safe copies, etc.).
	3.2.2	Organize autonomously the Personal Learning Environment (people, devices, tools, resources).

content in digital environments.		

AREA 4	4. Digital content creation Produce, edit and create digital content and develop creativity.	
Sub-competence	**Performance criteria**	
4.1. Developing digital content To produce and to edit digital content in different formats using the appropriate digital technologies.	4.1.1	Generate or modify digital content composed by text and tables, taking into account the design, structure, wording, etc.
	4.1.2	Treat data involving numbers, formulas, calculus and graphs.
	4.1.3	Produce, edit or improve digital content composed by images, sound and videos, taking into account the whole elaboration process (e.g. conception, design, etc.).
	4.1.4	Elaborate presentations taking into account the context and conditions (e.g. audience, time, academic requirements, etc.).
	4.1.5	Elaborate digital content integrating different formats, according to the aim of the project.
4.2. Developing creativity using digital technologies To create new content and knowledge and to express oneself through digital technologies.	4.2.1	Generate new information, be creative and express self when elaborating digital content in different formats.
	4.2.2	Create representations of knowledge using digital formats (e.g. maps, diagrams, schemes, conceptual maps, etc.).

AREA 5	5. Digital problem solving Identify needs, solve technical problems, configure environments and devices and programs.	
Sub-competence	**Performance criteria**	
5.1. Applying digital solutions to identified needs To understand where one's own digital competence needs to be improved or updated. To identify needs, select the appropriate digital solution and apply it.	5.1.1	Be aware of the existence of a variety of digital solutions, evaluate critically the adequacy of each of them in relation to a specific task and be able to identify and use the appropriate one in relation to the purposes (e.g. tools, devices, applications, software, etc.).
	5.1.2	To understand where one's own digital competence needs to be improved or updated. To seek opportunities for self-development and to keep up-to-date with the digital evolution.
5.2. Solving technical problems To detect and solve technical problems.	5.2.1	Be able to detect technical problems that can arise while operating devices and using digital environments (e.g. hardware, operating system, software, applications, etc.).
	5.2.2	Be able to find appropriate solutions to solve technical problems (in software or hardware) or ask for help when problems cannot be solved.
5.3. Programming and configuring digital tools, applications and devices	5.3.1	Customise digital environments depending on personal needs (e.g. accessibility, settings, additional components, etc.).
	5.3.2	

To plan and develop a sequence of understandable instructions for digital systems, to solve a given problem or perform a specific task.		To know and use the suitable elements of computational thinking through the design and implementation of programming projects.