# **GUIDE FOR RIVER AMBASSADORS**

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### INTRODUCTION

# Why an educational guide for "river ambassadors"?

It should not take many words to explain the choice to offer an educational path aimed at transforming secondary school students into "ambassadors of the river" or more generally, into "ambassadors" of the waters in their own territory.

It is almost superfluous to remember how, given the climate changes underway and in front of everyone's eyes, water represents an increasingly precious resource, to be protected, valued and used in a conscious and sustainable way. Many initiatives have been put in place, suffice it to mention, in order of time:

- the establishment of the World Water Day by UN resolution of 23 December 1992, based on the provisions of Chapter 18 of Agenda 21;
- the birth of the supranational support body to the UN UN-Water in 2003;
- the assumption in the UN Agenda 2030 of Objective 6: "Ensure the availability and sustainable management of water and sanitation for all".



In the same way, it seems almost redundant to reiterate the importance of preparing the new generations for this task. In fact, Objective 4 of the already mentioned UN Agenda 2030, "Providing quality, fair and inclusive education and learning opportunities for all", foresees as the seventh goal for its realization:

"To ensure by 2030 that all learners acquire the knowledge and skills necessary to promote sustainable development, including through education aimed at sustainable development and lifestyle, human rights, gender equality, the promotion of a peaceful and non-violent culture, global citizenship and the enhancement of cultural diversity and the contribution of culture to sustainable development".

To achieve this goal contributes in Italy the Law 92/2019 which introduces in schools of the first and second cycle of education the compulsory teaching of Civic Education and which, in Article 3, sets among the specific goals for the development of skills and specific learning objectives, in addition to the contents of

the already mentioned UN Agenda 2030, "environmental education, eco-sustainable development and protection of environmental heritage, production identities and territorial and agro-food excellence".

In light of what has been said so far and, in particular, of the complex issues included in the learning objective mentioned above, it is clear the meaning of the realization of an educational path for "river ambassadors" within a strategic partnership project for innovation and exchange of good practices, such as the *L&T'S River* project, which involves three schools and two organizations working in the *green economy*. An 'effective education for sustainable development can not disregard the knowledge of what is a "complex triangulation" between environmental, economic and social issues and the awareness of having to respect the delicate balances also through the acceptance of the need for compromise: this becomes more important than ever for students who are too often subjected to a unilateral media communication and is undoubtedly useful for a correct orientation towards their future<sup>1</sup>.

#### The "guide for river ambassadors".

Despite the title, the "guide for river ambassadors" proposes an educational path designed in terms as general as possible, so that it can be feasible, at least in the majority of its parts, in all secondary schools in whose vicinity there is fresh water. The aim is in fact to educate to the enhancement and protection of the "blue gold<sup>2</sup>" in all its forms, in view of that "think locally, act globally" which is one of the founding principles of the implementation of Agenda 21 through the adoption of "local Agenda 21".

The "guide for river ambassadors" is the result of the work of a team of secondary school teachers consisting of teachers of Italian, Foreign Languages (English, Spanish and German), Natural Sciences.

The text aims to be as operational as possible and is therefore, for the most part, composed of activity descriptions. Each sheet includes a part reserved for the teacher and a part that can be directly reproduced and provided to students as a work tool. The part reserved for the teacher contains:

- a brief discursive premise;
- the indication of the specific objectives of the proposed activity, declined by skills and competences (with reference to the Key Competences of citizenship identified by the EU Recommendation of 22 May 2018);
- a discursive description of the phases of the proposed activity;
- an indication of the expected timescale;
- an indication of the instruments to be used.

The part reserved for the student contains:

- indications as clear and concise as possible for the realization of the activity, complete with time available;
- brief indications on the purpose of the activity;
- indications about the tools to use: students will customize the list indicating the tools actually used.

A template sheet is provided to students to report the sources used. The compilation of the form can be entrusted to a student of the group who will be given the information by his classmates.

<sup>&</sup>lt;sup>1</sup> For a brief discussion of these issues please refer to Beggi - Silvestri 2019, from which the expression "complex triangulation" is also dealt with.

<sup>&</sup>lt;sup>2</sup> For the expression please refer to Barlow - Clarke 2004.

BOOKS				
AUTHOR	TITLE	PLACE AND YEAR OF PUBLICATION		
		(with possible indication of the site where a		
		downloadable version is available)		
	٢	MAGAZINES		
AUTHOR	ARTICLE TITLE	TITLE, ISSUE, YEAR OF PUBLICATION / URL DIGITAL		
		MAGAZINE ADDRESS		
	PHOTOGRAP	PHS, MAPS AND VIDEOS		
SOURCE	YEAR/EPOCA	AUTHOR		
(complete with book,		(if available)		
magazine or website)				
INTERNET SITE				
URL ADDRESS				

Each card is enriched with one or more images, generally present in both parts. The intent is to provide a visual stimulus to arouse attention and curiosity.

The proposed activities are not strictly related to each other, although in some cases there is a thematic thread. They can therefore be carried out either in succession or independently of each other, to give each teacher the opportunity to customize the course.

The "guide for river ambassadors" is divided into three sections: training the "ambassadors", actions promoted by young "ambassadors", both for peers and adults, and products for the community made by them.

The first section, dedicated to training, is divided into some thematic areas: a general area, dedicated to the basic knowledge of the aquatic reality of the territory; a scientific area, dedicated to the deepening of the aquatic environment as an ecosystem; an anthropological area, dedicated to the discovery of the different aspects of the complex relationship between man and water in a synchronic and diachronic dimension; an artistic area, dedicated to water as a source of artistic inspiration, reflection and personal expression. A table is reported in which we indicate the topics and the teachers that could be involved.

SECTION	TEACHERS	
1. TRAINING FUTURE RIVER AMBASSADORS		
GENERAL AREA		
Water classification Water and man	Teacher of first language; teacher of History and Geography (possibly accompanied by an external expert)	

SCIENTIFIC AREA	
Recognition of the aquatic environment	Teacher of Natural Sciences
Safeguarding flora	
Safeguarding wildlife	
Safeguarding water quality	
ANTHROPOLOGICAL AREA	
Waters and productive activities	Toachor of first language: Toachor of History and
	Geography
	(possibly accompanied by an external expert)
Water and energy	Teacher of first language; teacher of History and
	Geography; teacher of Mathematics and Physics
	(possibly accompanied by an external expert)
Water and transport	Teacher of first language; teacher of History and
	Geography
Water use: from conflicts to contract	leacher of first language; teacher of History and
	Geography; teacher of Law and Economics (if
	present)
	(possibly accompanied by an external expert)
The double face of water: water as a source of well-	leacher of first language; teacher of History and
being, water as a source of destruction	Geography
Water and (eco)tourism	Laboratory lecturer of tourist reception or external
	expert
ARTISTIC AREA	
Workshop on water and art 1: poetry to tell water	Teacher of first language; teachers of Foreign
	Language (English, French, Spanish, German)
Workshop on water and art 2: techniques to perceive	Teacher of Drawing and History of Art
and express water	

If it is decided to have the different activities carried out by groups of students (belonging to one or more classes), the activities in the general area will be common to all, while the activities carried out within the other areas will be shared using the tools deemed most appropriate. Periodic *briefings could be* organized among the students who are spokespersons of the individual working groups and *reports*, or other forms of synthesis of the activities carried out, could be prepared to be shared through a dedicated section of the school website or a teaching platform (e.g. Google Suite for Education Classroom). Alternatively, a group of students could be identified to share the different activities. Two members of the group, in turn, when not directly involved, act as "field reporters", take photographs, conduct short interviews and publish the "news" on the school's website.

The second section, dedicated to the recognition of the training course and the "investiture" of young "ambassadors" provides indicative models for evaluation work by teachers, self-evaluation by students. The proposed models will be focused on skills and graduated by level. In the same section will also be provided suggestions for the organization of the delivery of a sort of "ambassador" diploma during a

formal moment that marks the end of the training course. Below is a summary table:

SECTION	TEACHERS

2. BECOMING RIVER AMBASSADORS			
Self-evaluation of the training course			
Evaluation of the training course	All teachers involved		
Diploma Ceremony of river ambassadors	All teachers involved		

The third section, dedicated to the actions and achievements of the young "ambassadors", contains operational cards for some activities to raise awareness about the knowledge, protection and enhancement of the aquatic environment both among peers and the community and for the realization of some "products" useful to the community, such as a proposal for sustainable exploitation of water for tourism purposes to be submitted to the local administration, also in view of a possible inclusion in the "river contract" (or lake or swamp) if it exists, and the creation of an interactive map of the aquatic environment to be uploaded to the site of the local administration. A summary table is reported:

SECTION	TEACHERS		
3. RESTITUTION BY RIVER AMBASSADORS			
LEADING			
Organize an environmental educational visit for secondary school students	Teachers of Natural Sciences of the two schools		
Organize a creativity contest on the theme of water for secondary school students (possibly on the occasion of Water Day)	Lecturer in Art History; Lecturer in Art Education; Lecturer in Italian; Lecturer in Foreign Language		
Organize a guided tour of a cultural nature for citizenship	Teacher of Italian, History and Geography; teachers of Foreign Language		
Organize a guided environmental tour for the citizenship	Professor of Natural Sciences		
COMMUNICATING			
Take care of the updating of the special page of the school website	Teacher of first language		
Take care of the updating of the <i>social</i> channel of the Institute	Teacher of first language; teachers of foreign language		

Editing the project newsletter	Teacher of first language; teachers of foreign
Write articles for newspapers	Teacher of first language
Creating/releasing interviews	Teacher of first language

Making video	Teacher of first language, teacher of Natural Sciences	
	(supported by external expert)	
PRODUCING		
Proposal to local administration for sustainable water	Lecturer of tourist reception laboratory and teacher	
management (to be included in a "river contract")	of communication	
	(possibly supported by external experts)	
Creation of an interactive and multilingual map for	All teachers involved	
the website of the local administration	(possibly supported by external experts)	

# The methodology of the guide

The activities proposed in the path that constitutes the "guide" have been structured keeping in mind two main objectives. First, it is intended to offer teachers an opportunity to practice that "active school" with respect to which there are still difficulties and resistance, despite its educational effectiveness, for the purpose of learning knowledge, developing skills, acquiring skills and inclusion, has been known for about a century now: the expression *école active was* first used by P. Bovet in 1917 and a treatise so entitled was published by A. Ferrière in 1922 as part of a vast international movement for the renewal of schools. In preparing the "guide", therefore, active methodologies were given as much priority as possible, minimizing the space allocated to frontal lessons by teachers or external experts.



Secondly, the course aims to provide an opportunity to improve students' digital skills. This serves to improve digital competitiveness measured through DESI, which sees Italy in an unenviable position, but,

above all, guides the "digital natives" towards the acquisition of "digital wisdom". This is how Marc Prensky expresses himself, to whom both concepts are owed:

"I am convinced that digital technology can be used to make us not only smarter, but also wiser. Digital wisdom is a concept with a dual meaning: the wisdom that refers to the use of digital technologies to access the power of knowledge to a greater extent than our innate potential allows; and the wisdom that refers to the prudent use of technology to improve our capabilities<sup>3</sup>.

In the structuring of the activities the active methodologies are therefore combined with a targeted use of new technologies.



#### 1. Learning by discovery

Learning by discovery is an active methodology which, as widely demonstrated by J. Bruner's studies<sup>4</sup>, enables personal knowledge building and, as a result, promotes the transformation of knowledge into skills. In fact, the student becomes the protagonist of the acquisition of new information which, being not purely transmitted, is necessarily anchored to his personal baggage of knowledge, thus becoming significant and not inert, i.e. subject to rapid oblivion. The student also, learning by discovery, matures awareness of the characteristics of his or her learning style. It is therefore a particularly useful methodology to promote the key competence of citizenship "learning to learn".

In learning by discovery the teacher loses centrality as a source of knowledge because he no longer simply transfers knowledge to the students, but supports them in their own personal process of knowledge acquisition. The support provided by the teacher is also progressively reduced in relation to the skills acquired and shown by the students. The teacher then, initially "director" of the learning project, gradually accompanies the students in their maturation.

The new technologies are integrated into learning by discovery as the student becomes progressively able to critically analyze the information presented by the different sites and to organize the navigation by selecting them according to their reliability and their correspondence to the theme of the research.

<sup>&</sup>lt;sup>3</sup>See Prensky 2010.

<sup>&</sup>lt;sup>4</sup>The fundamental reference on learning by discovery or discovery learning is Bruner 1961.



### 2. Brainstorming

Although *brainstorming* was born in the advertising field, it has now become part of active teaching methods as it requires students to freely express their ideas on a subject without any evaluation by the teacher, who acts as a facilitator and not as a "judge".

The *brainstorming* phase is closely related to learning by discovery as it is particularly useful to activate the students' preconceptions and generate expectations in them that they will have the opportunity to confront during their "discoveries".

The new technologies offer several opportunities for *brainstorming* management through map building applications also available free of charge on the web such as Coggle and Text2mindmap.



#### 3. Collaborative learning

The set of methodological proposals inspired by collaborative learning has its roots in the history of the West. The Bible, the Roman rhetoricians and some 16th century pedagogues already mention the benefit of teaching others to learn or learning in pairs or among peers. At the end of the 18th century Joseph Lancaster in India and Andrew Bell in London applied a type of peer teaching, then this approach was transferred to the USA, developed in John Dewey's learning groups and based on studies of K's group

dynamics. Lewin's group dynamics studies.

In the U.S., AC was not widespread until after 1920, as an alternative to the predominant educational concept, which emphasized individualism, memorization, competition, pursuit of objectivity, etc.. "In this system - Cassany says - the student does not have to write, reason, think, argue; he simply memorizes, marks crosses on the tests, passes every level, so that it is possible to complete an educational cycle without having to develop social skills of exchange and negotiation, or without having matured a reflective and analytical thought". <sup>5</sup>

Today the interest and research on this methodology continues, not only in many American universities (University of Minnesota, Johns Hopkins University, University of California) but also in Israel, Norway, Spain and Italy.

Hiltz and Turoff offer this definition that can introduce us to the topic:

"Cooperative learning is defined as a learning process that emphasizes group and collaborative efforts between teachers and students. It emphasizes the active participation and interaction of both students and teachers. Knowledge is seen as a social construct, and therefore the educational process is facilitated by interaction, evaluation and peer cooperation".

This is how the Italian expert Mario Comoglio expresses himself:

"Cooperative Learning aims to be a method capable of achieving not only effective school results, but also educational goals required by contemporary society. Currently, the strengthening of cooperative interaction between people is a need imposed by the crisis of institutions more specifically delegated to the socialization process (family, school) and by the transformations occurred in recent decades in the productive, economic, scientific and demographic fields.

The school has always paid little attention to the interaction between students: in this way it has precluded the possibility both to use the educational potential inherent in this mode of relationship and to raise the level of school performance, which is one of its primary aims".<sup>6</sup>

Within the more general theoretical framework of Cooperative Learning, we find names that correspond to different currents and modalities. The *Learning Together* by D. W. Johnson and R. T. Johnson is the most widespread and has been the subject of the most experimental investigations. It is based on 5 essential elements: positive interdependence, direct constructive interaction, social skills, individual responsibility and evaluation of teamwork.

<sup>&</sup>lt;sup>5</sup> Cassany, D. 2004. Aprendizaje cooperativo para ELE, Universitat Pompeu Fabra.

<sup>&</sup>lt;sup>6</sup> Comoglio, M. y Cardoso, M. A. 2006. *Teaching and learning in groups. The Cooperative Learning,* LAS, Rome.



By mediating between the different proposals that have been developed, the most commonly accredited and shared fundamental points are presented:

#### - Social skills

Many approaches to AC teaching (Johnson, 1999; Kagan, 1994) insist that all activities should be carried out in groups of a few students, because they are assumed to be unable to work in groups and therefore need to be trained. This means that the teacher must teach and train social skills such as dialogue, listening to others, expressing opinions, negotiating agreements, etc. to facilitate the work, create trust in the group, improve communication, solve problems and make decisions.

#### - Heterogeneity

The formation of groups cannot be separated from an analysis of performance levels, interests, social dynamics among students and ethnic varieties present in the class group. The data that the teacher collects (through individual questionnaires, control tests, ...) help to give useful information for the creation of groups as heterogeneous as possible, where individual differences are the wealth that allows the team to collaborate and progress in learning. Crandall (2000) believes that to achieve this heterogeneity it is important that teachers themselves form teams "in order to maximize the contribution of each student in the group and to provide each individual with the opportunity to learn from the other members of the group".

#### - Positive interdependence

The dependence of team members is mutual and is defined positively because it aims to do something for the construction of knowledge and the development of the individual. Teams learn that their individual successes are based on the success of the team. Elena Landone states that "the principle of cooperation consists in the existence of an awareness, among the members of the group, of being "linked" to others in order to achieve a goal, through a bond that allows everyone to achieve a goal only if everyone, within the group, carries out their tasks".

One of the most important collaborative strategies for a positive interdependence is the willingness

to help and to know how to ask for help, in this way the "weakest" benefit from the competence of the most prepared, and they strengthen their knowledge by verbalizing, explaining, simplifying and reorganizing what they know so that it is understood by their peers.

Among the elements that contribute to creating a positive interdependence are: the division of work, the definition of roles in the team, the distribution of materials or information, the evaluation of the final result partly collectively and partly individually.

#### - Individual and group responsibility

The group must be responsible for achieving the objectives and each member must do their part. Individual responsibility is possible through the evaluation of each student's performance and reflection within the group on the results of the members to provide help and support to those who need it.

#### - Constructive and direct interaction

The idea that social interaction is the origin and engine of learning and intellectual development is one of the pillars supporting cooperative learning. Students must work together and help each other to support each other academically and personally. This is done through verbal explanation of problem- solving strategies, discussion of the concepts studied, sharing of knowledge and integration of new content with what is already known.

In addition, by praising and encouraging each other's efforts, students create a psychological environment of mutual availability and support, which ensures good communicative interaction, feedback exchange, creative stimulation and self-regulatory control of behavior.

#### - Group evaluation and feedback

The topic of group evaluation is part of every work developed with cooperative learning. During and at the end of each activity it is fundamental to provide for an evaluation phase that must combine the process with the results, the training objectives with the objectives of consumption, the individual evaluation with the collective one, the teacher's evaluation with the students' self-evaluation.

To ensure an objective evaluation of the process, the teacher is advised to take notes during the control of each group, and students are advised to fill out forms on participation, level of collaboration, difficulties encountered... An example of a quick check at the end of an activity can be the NIP: on a piece of paper each student or group writes a positive, a negative and an interesting thing. With this simple resource the teacher has useful information to continue the work and improve his teaching.

The use of cooperative learning becomes effective through disciplined and organized action. The points listed above must be strictly applied to produce the necessary conditions for a truly cooperative activity.

Among the many general advantages that can already be deduced from what has been said so far, Clara Urbano helps us to highlight some of the most relevant ones related to foreign language learning in the language class: - Reduces anxiety: it is one of the main factors influencing learning. Kagan says that if you allow people to associate, their level of anxiety is greatly reduced. Crandall says that "time to think, opportunities to try and receive feedback and the increased likelihood of success reduce anxiety and lead to greater participation and language learning.

- Encourages interaction: Shy learners feel more confident in their oral interventions because they receive the support of their peers. Naoko Aoki also suggests adapting the arrangement of classroom furniture: "If we want this type of student to freely exercise his or her autonomy in the classroom, we must create an alternative physical environment, make visible the reduction in teacher power and abolish the threat of others by becoming caring peers.

- Increase self-confidence and self-esteem: By integrating different skills, students develop greater confidence in public speaking and participating in class discussions. Increased self-esteem promotes learning.

- Increases motivation: depending on the mode used, AC stimulates both extrinsic motivation (desire to obtain a reward or avoid punishment) and intrinsic motivation (learning is the reward), however, autonomy and feedback promote personal ability and involvement, developing the second type of motivation that is the most desirable.

We consider the knowledge and application of AC in the classroom an indispensable tool in today's school (and society), where it is not enough to transmit content, but it is necessary to educate to democracy, respect for differences, peaceful resolution of conflicts, if we want our students to achieve responsibility, autonomy and ability to cooperate for common goals and not only to meet their needs.

#### 4. Collaborative writing

Collective writing is a particular form of collaborative learning aimed at the composition of texts in which the best of the expressive skills of each individual student emerges. Among the first to understand the potential of this method for improving students' linguistic skills is the priest Don Milani, who founded and directed an "active school" in Barbiana (Mugello) from 1954 to 1967. Don Milani was particularly interested in this aspect of education because he maintained that "it is the language that makes us equal", an idea that is still fully relevant today, given that functional alphabetical competence is the first of the Key competences of citizenship. These are the words with which, in a letter addressed to master Mario Lodi (another revolutionary Italian exponent of the "active school"), he describes the results:

"I explain it like this: each child has a very limited number of words that he uses and a very large number of words that he understands very well and whose merits he can evaluate but which would not come easily to his mouth. When the 25 proposals of the individual children are read aloud, it always happens that one or other of them (and it does not necessarily have to be one of the older children) gets a particularly precise or happy word or turn of phrase right. All those present (even if they had not been able to find it at the time of writing) suddenly realise that the word is the best and want it to be adopted in the unified text. That's why the text has acquired that gait and rigor of an adult (I would say, even an adult who measures words! unfortunately very rare animal). That is, the text is at the cultural level of the ear of these

children, not at the level of their pen or their mouth".7

New technologies offer some interesting opportunities for the practice of collaborative writing: just mention the virtual bulletin board *Padlet* or *Google Documents*.



# 5. Outdoor school

The outdoor school has been from the beginning a characterizing element of the teaching methodology of "active schools" and has recently been re-proposed to the attention of teachers as a useful strategy for the prevention and containment of COVID 19 infection. By way of example, we can cite a note on useful suggestions for the restart of the school in the school year 2020/21 published by the Regional School Office of Emilia-Romagna<sup>8</sup>. This note opens, significantly, with a quotation from the already mentioned teacher Lodi in which the connection between outdoor school and learning by discovery is well highlighted:

"Children, from the earliest years of life, playing, have explored the small world in which they were born. They saw, heard, touched, smelled and tasted what was at hand. They played with water, sand and other materials and thus discovered many laws of the physical world. With that knowledge they organized their first culture. They did as scientists did."

#### By M. Lodi, Me and Nature, 1999

The note goes on to point out that the outdoor school methodology is not at all an obstacle to the development of students' digital skills. In fact, it reads:

"... New technologies can promote the didactic action of these schools. It is enough to remember the ease with which today you can photograph, for example, or with which you can search on the Internet for a flower or an insect that you can not recognize, the simplicity with which you can record data and make graphics and processing, build illustrative films, digital texts, multimedia and so on".

<sup>&</sup>lt;sup>7</sup> from the letter to master Mario Lodi of November 2, 1963 in https://www.barbiana.it/LODI-MILANI.html

<sup>&</sup>lt;sup>8</sup>"Even outside you learn": the outdoor school (Outdoor Education)" - note 31 July 2020, prot. n. 11702 -

http://istruzioneer.gov.it/2020/07/31/a-s-2020-21-e-covid-19-materiali-ripartenza-15-la-scuola-allaperto/. The note also offers historical references on the relationship between the "active schools" in Italy and the outdoor school at the beginning of the 20th century, as well as the *link* to the site of the network of outdoor schools currently present in Italy. For an overview of more recent European experiences see Bentsen 2019.



#### 6. Peer education

Peer education is a methodology used especially for the prevention of health risk behaviors among adolescents as it allows a more direct and effective communication through the perception of "being on the same side" and the sharing of the same type of language with its cultural references.

Peer education can therefore be particularly useful in the context of environmental education as it allows to eliminate the feeling of authoritarianism and prohibition associated with adult-adolescent communication, especially by younger children. If conveyed by peers, preferably through the use of multimedia languages such as video, environmentally friendly behaviors are no longer seen as a series of obligations to be met, but as good shared habits. Peer learning is also useful to ensure that sustainability issues do not appear to be a "grown-up thing", but issues that can and must be addressed by the "little ones" who will be the future citizens.



#### PART 1. TRAINING

### A. GENERAL AREA

#### 1. WATER AS A GEOGRAPHICAL REALITY

#### TEACHER CARD 1 - WHAT ARE WE TALKING ABOUT?

When we talk about the waters that are part of the everyday landscape, the waters near which we pass every day, we do not always use an appropriate language from a geographical point of view. The proposed activity aims to ensure that future ambassadors acquire a precise awareness of the reality they will have to communicate and enhance.

#### Key competences activated

- Functional alphabetical competence.
- Digital competence.
- Personal, social and learning to learn competence.
- Skills
- Mastering and using the specific geographical lexicon to describe the waters
- Formulating hypotheses and verifying them by comparing different sources.
- Researching, reworking and returning information using new technologies.

#### Activities and phases

The activity "River or... ?" consists of three phases: documentation, re-elaboration and comparison, return of results.

The students are divided into small groups and carry out research at home on the following geographical definitions: river, stream, canal, lake, swamp.

At the end of the research they have to choose the definition that best corresponds to the waters in their territory and prepare a presentation for the other students in which they illustrate these correspondences using images chosen by them. In the presentation they should focus on some key concepts: shape, lift, natural or artificial character.

In the classroom, the presentations of each group are compared and a unique presentation is developed that summarises the most significant aspects and images.

#### Times

- Identification of groups: 10'.
- Documentation: 1h.
- Preparation of the presentation: 1h.
- Presentation to the classmates: 10/15' per group. Comparison and conclusions: 30'/1h.

#### Tools

- paper or digital online language dictionary
- geography text (also from the school library, if present)
- consultation websites (e.g. Wikipedia)
- Students can also consult the multilingual (English, German, French, German and Italian) synoptic picture in the following volume (downloadable from the website www.beic.it):



# STUDENT CARD 1- WHAT ARE WE TALKING ABOUT?

#### River or ....?

1. Research the definition of the following terms:

river stream channel lake swamp

2. Choose the definition that describes the waters of your territory.

3. Prepare a short presentation with images chosen by you in which you show the correspondence between the waters of your territory and the definition you have identified as most suitable. Focus on the following key concepts:

form

quantity of water (flow) at different times of the year

natural/artificial character

#### What can you use?

• language dictionary (also available online);

- geography text;
- digital resources (e.g. Wikipedia, Wikizionario).

If you are interested in languages, you can use a tool like this:



#### What did you use?

Please note the tools you used on the form provided by your teacher.

#### What do you need the proposed activity for?

- Knowing and using the specific geographical vocabulary to describe the waters
- Formulating hypotheses and verifying them by comparing different sources.
- Researching, reworking and returning information using new technologies.

### 2. WATER AND MAN

### TEACHER CARD 2 - A STORY TO DISCOVER

It is important that future ambassadors have a clear and broad picture of the relationship that has been developing over time between water as a natural element and man. The proposed activity therefore aims to make students aware of the different ways in which this interaction has been taking place, including at local level.

#### Key competences activated

- functional alphabetical competence
- digital competence
- personal and social competence and learning to learn skills
- competence in matters of citizenship
- competence in cultural awareness and expression.

#### Objectives

- Observe, analyse and describe the reality under consideration
- Identify transformations in the natural and man-made landscape
- Acquire and interpret information
- formulating hypotheses and verifying them through the use and comparison of different sources
- Acquire awareness of the relationship between man and water in one's own territory
- Designing and creating a multimedia concept map representing the observed reality
- Identify responsible behaviour aimed at protecting and enhancing water.

#### Activities and phases

Students follow a frontal lesson on the relationship between man and water. After the frontal lesson they are divided into small groups.

Each group draws up a multimedia conceptual map that represents the development over time of the relationship between man and water in its own territory, investigating the following aspects among those covered in the lesson: the state of water (ecosystem, protection...); man's intervention on water (regulation, construction of dams and canals, ...); water as a resource (agriculture, tourism, ...); water as a source of inspiration (name, art, literature, ...); water management (problems, sustainability ...). In addition to the notes, students use the following tools for the elaboration.

Each group presents their own map to their peers and, after a moment of comparison, a unique map is drawn up.

#### Time

frontal lesson: 1.30/2 h identification of groups: 10' map elaboration: 2h presentation: 15' per group comparison and elaboration of a single map: 1h

#### Tools

- frontal lesson (by the teacher or an expert)
- topographical maps

- historical maps (also in digital format)
- Internet sites (region, municipality; protection bodies)
- books or magazines dedicated to local history
- photographs
- interviews

Example of a historical map of the river Reno



# STUDENT CARD 2- A STORY TO DISCOVER

### Activities

Build a multimedia concept map that represents the relationships developed between man and water over time in your territory.

To create it, among the themes dealt with during the teacher's lesson or during the expert's intervention in particular, explore the following aspects in depth:

- the state of water (ecosystem, preservation...)
- man's intervention on water (regulation, construction of dams and canals, ...)
- water as a resource (agriculture, tourism,...)
- water as a source of inspiration (art, literature,...)
- water management (problems, sustainability...)

#### What can you use?

You can explore the aspects covered in the lesson with:

- topographical maps
- historical maps (also in digital format)
- Internet sites (region, municipality; protection bodies)
- books or magazines dedicated to local history
- photographs
- interviews

Here is an example of a historical map:



#### What did you use?

Please report the tools you used on the card provided by your teacher.

### What do you need the proposed activity for?

- Observing, analysing and describing the reality under consideration.
- Identifying transformations in the natural and man-made landscape
- Acquiring and interpreting information
- formulating hypotheses and verifying them through the use and comparison of different sources
- Acquiring awareness of the relationship between man and water in one's own territory
- Designing and creating a multimedia concept map representing the observed reality
- Identifying responsible behaviour aimed at protecting and enhancing water.

### **B. SCIENTIFIC AREA**

#### 3. RECOGNITION OF THE AQUATIC ENVIRONMENT

# TEACHER CARD 3 - PHYSICAL AND GEOGRAPHICAL MAPPING

Water monitoring by students can be adopted both as a method of direct control by citizens over water resources and as a tool for raising awareness and communicating environmental criticalities. A first step is certainly that of mapping the physical-geographical characteristics of the river or water basin of interest, a stage on which the proposed activity focuses.

#### Key competences activated

- digital competence
- personal and social competence and the ability to learn to learn
- competence in matters of citizenship

#### Objectives

- Observing, analysing and describing the reality considered
- Learning how to collect data
- Acquiring and interpreting information
- Formulating hypotheses and verifying them through the use and comparison of different sources

# Activities and phases

Students listen to a short frontal lecture on the geographical characteristics of the waters in their territory and the use of the Google My Maps application.

If the activity Rijeka or...? takes place, the description of the geographical characteristics may be skipped. Using the Google My Maps application, the students work in small groups and create a map of the aquatic environment under study by highlighting the characteristics indicated during the frontal lesson or emerged at the end of the activity Rijeka or...?

In the end each group presents its results to the rest of the class and a unique map is created.

#### Times

frontal lesson: 1/1.30'. identification of groups: 10'. development of each single card: 3-4 h presentation: 10' per group comparison: 1h

# Tools

- frontal lesson (by the teacher or an expert)
- Google My Maps app (school PC or personal device)

- topographic maps;
- websites (region, municipality; protection bodies)

### Example of river route representation



#### STUDENT CARD 3 - PHYSICAL AND GEOGRAPHICAL MAPPING

#### Activities: observing the path of the river or describing the reservoir

Draw the route of the river or basin using Google My Maps (https://www.google.com/maps/d/u/0/).

In order to make it, follow the instructions provided by the application and use the plotter to highlight the following aspects:

- source, mouth, river route
- catchment area
- lakes

#### What can you use?

You can go into more detail about what you can use:

- topographic maps
- websites to collect information on the route of the river or the extent of the reservoir (region, municipality, protection bodies)

#### What do you need the proposed activity for?

- Describing the reality considered
- Acquiring and interpreting information
- Tracing the reservoir and visualizing in detail its morphology
- Using the digital tools available on the internet to build a map of the territory

# Example of a river route



#### 4. SAFEGUARDING FLORA

# TEACHER CARD 4 - SAFEGUARDING FLORA

Water monitoring by students can be adopted both as a method of direct control by citizens over water resources and as a tool for raising awareness and communicating environmental criticalities. A second phase is represented by the observation of the flora that characterizes the reference aquatic environment. The data collected are used to inform the other future "ambassadors", families, the community, and eventually to interact with the local authorities if critical issues arise. This activity also serves to animate the territory, encouraging social aggregation around environmental issues. Monitoring for educational purposes represents a direct and involving experience for youngsters, which allows them to reach different and important objectives.

# Key competences activated

- digital competence
- personal and social competence and the ability to learn to learn
- scientific competence (in mathematical competence and competence in science, technology and engineering)
- competence in matters of citizenship

# Objectives

- Observing, analysing and describing the reality considered
- Learning how to collect data
- Acquiring, interpreting, reworking and selecting information
- Formulating hypotheses and verifying them through the use and comparison of different sources
- Observing and analysing land use in areas close to the water basin
- Questioning man-natural environment relations and interactions and land management policies
- Identifying responsible behaviour aimed at protecting and enhancing water resources

### **Activities and phases**

The activity foresees four phases: frontal lesson, observation, realization of a herbarium, report on the state of the vegetation for the other future "ambassadors".

The students follow a frontal lesson during which the characteristics of the soil and the flora of the aquatic environments are presented, the software for the transformation of photographs into graphic representations and the activities to be carried out are presented.

The students go in pairs to the water (alone or accompanied), identify a transept (non chiaro cosa si intende) in the manner indicated to them and take photographs.

Using one of the special software, they create a graphic representation of the chosen point and fill it with the observed data in the way indicated to them.

Following the instructions received, each couple builds a herbarium.

Each pair presents the result of their work to their companions and a report is written on the state of the flora (including any critical issues, such as alterations in the balance of the ecosystem due to the introduction of alien species or the extinction of native species). The report is presented and provided to other future "ambassadors". **Times** 

frontal lesson: 1.30'/2 h individuation of the pairs: 10' development of the observation chart: 3h construction of the herbarium: 2h presentation: 15' per couple comparison and report processing: 1.30'h

# Tools

- frontal lesson (by the teacher or an expert)
- photographs;
- graphic processing software;
- digital or paper comparison of botanical data sheets;
- dustpan;
- newspaper sheets (newspaper paper absorbs moisture well)
- press (two 1 cm multilayer wooden boards on which to place a weight are sufficient to hold the finds and dry them)
- A4 cardboards on which to place the specimen once it has dried and which will be fixed with pins

- binder to contain the cards
- Botany manual to identify the species and describe them on the card

Example of herbarium card and graphic representation



# STUDENT CARD 4 - SAFEGUARDING THE FLORA

#### Activities: the flora of the aquatic environment

#### A. Identify the main components of vegetation in an aquatic environment.

To carry out the activity, follow these instructions:

- delimit a transept, i.e. take two points of reference, the first on one side and the second on the other.
- photograph the transept
- turn the photo into a drawing, using free applications available on the network
- identifY the main types of sediment (boulders, pebbles, gravel, sand, silt, soil) and indicates them on the graph
- identify the main types of trees and shrubs by comparing them with the images available on the web (oaks, maples, willows, ash trees, etc.) and indicates them on the graph, noting the date and place where the observation took place
- identify the main types of herbaceous plants, using the botanical guides available on the web, and indicate them on the graph, noting the date and place where the observation took place.

At the end of the activity, you must have made a drawing similar to the one below.



#### What can you use?

- topographic maps
- websites to collect information on the flora of the aquatic environment
- websites for graphic processing

#### B. Create your herbarium.

To carry out the activity, follow these instructions:

- pick with a shovel some herbaceous finds, preferably in bloom and with roots; choose the ones you think most interesting and note the date and place of the picking;
- place the finds between two sheets of paper (preferably newspaper, particularly absorbent) then between two wooden boards about 1 cm thick and place a weight on the boards; in this way the finds will be dried;
- when the finds are dried, fix them with pins on an A4 card;
- for each one, identify the name of the species and its description on the card, using a botanical manual or special digital cards;
- insert the cards in the binder following the botanical classification.

At the end of the activity you will create some cards similar to the one below:



### What can you use?

- newspaper sheets (newspaper paper absorbs moisture well)
- press (two 1 cm multilayer wooden boards on which to place a weight are sufficient to hold the finds and dry them)
- A4 cardboards on which to place the specimen once it has dried and which will be fixed with pins
- binder to contain the cards
- Botany manual to identify the species and describe it on the card

### What do you need the proposed activity for?

- To observe, analyse and describe the reality considered
- Learn how to collect data
- Acquire, interpret, rework and select information
- Formulating hypotheses and verifying them through the use and comparison of different sources
- Observe and analyse land use in areas close to the water basin
- Questioning man-natural environment relations and interactions and land management policies
- Identifying responsible behaviour aimed at protecting and enhancing water resources

#### 5. SAFEGUARDING WILDLIFE

### TEACHER CARD 5 - SAFEGUARDING WILDLIFE

Water monitoring by students can be adopted both as a method of direct control of water resources by citizens and as a tool for raising awareness and communication of environmental criticalities. The third important step is the observation of the fauna present in the aquatic environment. The collected data, such as those relating to flora, are used to inform other future "ambassadors", families, the community and, if necessary, to interact with the local authorities to identify suitable measures to improve the state if critical issues arise. This activity, like the one related to flora, also serves to animate the territory, encouraging social aggregation around environmental issues. Monitoring for educational purposes represents a direct and involving experience for children, which allows them to reach different and important objectives.

#### Key competences activated

- digital competence
- personal and social competence and the ability to learn to learn
- scientific competence (in mathematical competence and competence in science, technology and engineering)
- competence in matters of citizenship

#### Objectives

- Observing, analysing and describing the reality considered
- Learning how to collect data
- Acquiring and interpreting information
- Formulating hypotheses and verifying them through the use and comparison of different sources
- Observing and analysing land use in areas close to the water basin
- Questioning man-natural environment relations and interactions and land management policies
- Identifying responsible behaviour aimed at protecting and enhancing water resources

#### **Activities and phases**

The activity consists of four phases: the construction of a small manual about the fauna present in the studied aquatic environment, the observation, the documentation of the observation carried out through images and finds, the drafting of a *report*.

To build the manual, students are divided into small groups or pairs. Each small group (or each pair), after carrying out a bibliographic search with paper resources (also using the school library, if present) or digital tools, compiles a list of one of the following categories of animals present in aquatic environments:

- main FISHES (carp, trout, barbel, etc.)
- main MACROINVERTEBRATES (bivalves, gastropods, crustaceans, beetles, diptera, etc.).

- main ANFIBES (frog, toad, tree frog, newt, etc.).
- main MAMMIFERS (vole, nutria, etc.)
- main BIRDS (heron, duck, blackbird, etc.).

For each animal on the list, a photograph and a brief description of its life habits must be provided.

At the end of the research, the materials are assembled and the "manual" is distributed to each student. After studying the manual the students go independently to the aquatic environment ,preferably in pairs and at different times of the day. Each pair takes photographs or takes shots of the animals, which they can identify by noting the date, time, place and exact position of the observation.

Each couple then goes on to patrol the grounds in search of possible finds that document the presence of animals. Each find is placed in a glass jar on which is placed a label indicating the type of find, the date, the place and the point of acquisition of the find.

In class each couple presents the results of their observations to their classmates. This is followed by a moment of comparison during which a *report is* drawn up for the other future "ambassadors" in which the state of the fauna and any criticalities (e.g. alterations in the balance of the ecosystem due to the introduction of alien species or the extinction of native species) are indicated.

# Times

Identification of groups: 10 Construction of the manual: 4h per unit or pair + 30' for assembly Study of the manual: about 3h per student Remark: 1h per pair Presentation of observation results: 10' per pair Comparison and drafting of the *report*: 1/1.30'h

# Tools

- zoology manuals or fact sheets available on specialised websites
- printer;
- photos/video
- glass jars (also of different sizes)
- adhesive labels

### STUDENT CARD 5 - SAFEGUARDING WILDLIFE

### Activities: fauna of the aquatic environment

### A. Identifies the main animals, vertebrates and invertebrates, of a water basin.

- carry out a bibliographic search on the category of aquatic animals assigned to your group
- compile a list of the main representatives of the category assigned to you (e.g. for fish, carp, trout, barbel, etc.) providing for each of them a photograph and a brief description of their habits
- study the product manual by putting together the lists of each group

### B. Observe the main animals, vertebrates and invertebrates, of a water basin.

- use the camera or video camera to film the animal organisms that you are able to identify, noting the date, place where the observation took place and the point where the detection took place (tree, bush, shore, puddles of water, etc.).
- collect in glass jars any finds (shells, feathers, reptile skins, arthropod exoskeleton, teeth, etc.) noting the date, place and point where the collection took place (tree cavities, bush, bank, ravines, etc.).

Here are some animals you might see:



### What can you use?

- websites to collect information on the fauna of the aquatic environment
- camera and/or video camera
- telescope
- glass jars

adhesive labels

# What do you need the proposed activity for?

- Observe, analyse and describe the reality considered
- Learn how to collect data
- Acquire and interpret information
- Formulating hypotheses and verifying them through the use and comparison of different sources
- Observe and analyse land use in areas close to the water basin
- Questioning man-natural environment relations and interactions and land management policies
- Identifying responsible behaviour aimed at protecting and enhancing water resources

# 6. SAFEGUARDING WATER QUALITY

# TEACHER CARD 6 - SAFEGUARDING WATER QUALITY

Water monitoring by students can be adopted both as a method of direct control by citizens over water resources and as a tool for raising awareness and communicating environmental criticalities. The last proposed activity, certainly not for importance, is the organization of groups of students in charge of periodically monitoring the quality of the water close to them. The data collected are used to inform other "ambassadors", families, the community, and possibly to interact with local authorities when they do not take the appropriate measures to improve the status. This activity also serves to animate the territory, encouraging social aggregation around environmental issues. Monitoring for educational purposes represents a direct and involving experience for the children, which allows them to reach different and important objectives.

# Key competences activated

- digital competence
- personal and social competence and the ability to learn to learn
- scientific competence (in mathematical competence and competence in science, technology and engineering)
- competence in matters of citizenship

# Objectives

- Observe, analyse and describe the reality considered
- Learn how to collect data
- Learning to know and analyse the chemical, physical and biological parameters of water

- Acquire and interpret information using simple laboratory tools
- Formulating hypotheses and verifying them through the use and comparison of different sources
- Observe and analyse land use in areas close to the water basin
- Questioning man-natural environment relations and interactions and land management policies
- Identifying responsible behaviour aimed at protecting and enhancing water resources

### Activities and phases

The activity is divided into three phases: documentation of the main chemical-physical parameters used to monitor water quality; periodic water monitoring by each group, according to the assigned shift; data return.

Students are individually documented on the main chemical-physical parameters used to monitor water quality. Groups and shifts are identified for periodic monitoring. Students carry out the monitoring according to the given instructions and fill in a form. The results of the various monitoring carried out are processed in a *report* highlighting the state of the water and any critical issues. The *report* is presented and provided to other future "ambassadors".

### Times

documentation: 1.30/2 h identification of groups and shifts:10' monitoring and filling in the form: 3-4 h presentation: 10' per group processing of the final *report*: 1/1.30'h

# Tools

- Science manuals or specialized websites
- sample collection kit available on specialised and low-cost websites
- monitoring card similar to the one shown here:

SAMPLING TABLE-example river water				
		measure n.1	measure n. 2	measure n. 3
Sample and	water	right bank,	left bank, near	right bank far
place of	river Reno	near the bridge	the bridge	from the village
sampling	in Porretta			
date	mm/dd/yyyy			
smell	The smell must			
	be absent.			
	(odourless)			
colour	The water must			
	be colourless			
	and			
	transparent			
turbidity	The water must			
	be transparent			

temperature	Variable from		
	5°C to 15°C		
рН	Value between		
	6.0 and 8.0		
dissolved	Value between		
oxygen	8 mg/L and 14		
	mg/L		
ammonia	Value less than		
	0.5 mg/L		
conductivity	Value between		
	250 and 850μ S		

### Observations and conclusions (derived from comparison with standard data)

.....

# STUDENT CARD 6 - SAFEGUARDING WATER QUALITY

### Activities: monitoring water quality

### A. You know the main chemical-physical parameters used to monitor water quality.

#### <mark>Drink research (non mi è chiaro cosa si intende) o</mark>n

- chemical and physical properties of water
- colour and smell of water
- water turbidity
- water temperature
- Water pH
- dissolved oxygen in water
- ammonia and its concentration in water
- water conductivity

#### **B.** Monitor water quality

- Go near an aquatic environment noting the date and place of sampling.
- Collect water samples using two glass jars.
- Observe and note the COLOUR and ODOR of the water sample collected.
- Observe and note the TURBIDITY of water: a decrease in the transparency of water due to the presence of suspended solid substances, consisting of very fine particles, from erosion or pollution.
- Make and note at least three water TEMPERATURE measurements by immersing a thermometer directly into the water; you can use a normal digital kitchen thermometer with instantaneous reading.
- Perform and record at least three measurements of the water pH, immersing the digital pHmeter directly into the water; as an alternative to the pHmeter you can use a strip of litmus paper, to be immediately immersed in the water sample taken.
- Perform and record at least three measurements of DISSOLVED OXYGEN in the water by immersing the digital meter in the water sample taken. N.B: the instrument must be made available to the school laboratory.
- Make and note at least three measurements of AMMONIACA in the water, using the appropriate kit or by immersing the digital meter in the water sample taken. N.B: the instrument must be made available to the school laboratory.
- Perform and record at least three measurements of CONDUCIBILITY using a conductivity meter. N.B: the instrument must be made available to the school laboratory.
- Create a table with the experimental data which have been collected.
- Compare the data with the standard data available on the network that you will have reported in a column of the table.

## What can you use?

You can go deeper into the aspects dealt with using:

- websites to collect information on the chemical-physical properties of water
- internet sites for the purchase of simple water analysis kits
- a monitoring card similar to this one:

SAMPLING TABLE-example river water					
		measure n.1	measure n. 2	measure n. 3	
Sample and	water Reno	right bank,	left bank, near	right bank far	
place of	river in	near the bridge	the bridge	from the village	
sampling	Porretta				
date	mm/dd/yyyy				
smell	The smell must be absent. (odourless)				
colour	The water must be colourless and transparent				
turbidity	The water must be transparent				
temperature	Variable from 5°C to 15°C				
рН	Value between 6.0 and 8.0				
dissolved oxygen	Value between 8 mg/L and 14 mg/L				
ammonia	value less than				

	0.5 mg/L		
conductivity	Value between 250 and 850µ S		

### **Observations and conclusions**

.....

### What do you need the proposed activity for?

- Observe, analyse and describe the reality considered
- Learn how to collect data
- Learning to know and analyse the chemical, physical and biological parameters of water
- Acquire and interpret information using simple laboratory tools
- Formulating hypotheses and verifying them through the use and comparison of different sources
- Observe and analyse land use in areas close to the water basin
- Questioning man-natural environment relations and interactions and land management policies
- Identifying responsible behaviour aimed at protecting and enhancing water resources

## C. ANTHROPOLOGICAL AREA

### 7. WATER AND PRODUCTIVE ACTIVITIES

## TEACHER CARD 7.1. - THE IRONWORKS

For a long time now man has discovered that water can make tools suitable for producing various goods and that, what is more, it can be constantly available. Moreover, it can be used with respect for the environment as it does not produce polluting substances. The proposed activity aims to guide future "ambassadors" to discover how water has been used in their territory to produce energy in a clean way, a sort of "white coal" used for centuries in local plumbing factories.

### Key competences activated

- functional alphabetical competence
- mathematical competence and competence in science, technology and engineering
- digital competence
- personal and social competence and learning to learn skills
- competence in matters of citizenship

### Objectives

- Observing, analysing and describing the reality under consideration
- Capturing, interpreting and selecting information
- formulating hypotheses and verifying them through the use and comparison of different sources
- Knowing how to identify problems and formulating targeted questions
- Recognising examples of sustainable development
- Identifying responsible behaviour aimed at protecting and enhancing water.

## Activities and phases

The activity includes four phases: a brainstorming on the theme of sustainable development aimed at detecting students' spontaneous knowledge; analysis of a sustainable development model in the past through the intervention of an expert; preparation of an interview on the rediscovery of the current value of that model; recording of the interview and its publication on the school's website.

The students are first asked to answer questions on the type of the following:

- what is development?
- how many types of development do you know?
- when is development defined as sustainable?
- how is sustainability pursued in development?
- what happens if development is not sustainable?

Then a case study of a water-based production reality of the past is planned. A local history expert will present the chosen production reality and guide the students to reread the choices made with a view to environmental sustainability. Finally, divided into pairs or small groups, they will develop an interview with the owner of the site. In the interview, which will be carried out during a guided tour, students will have to go into some aspects in depth, such as, for example

- the valorisation of water as a precious asset
- water management, also in the face of climate change
- future prospects

Once finished, the questions produced will be shared among the groups and discussed, proposing possible additions and adjustments.

The final text of the interview is proposed during the guided tour of the chosen site. The recording will be published on the school's website.

## Times

Activation of preconceptions: 30'

Case study: 1.30h

Processing of the interview in group: 1h Discussion and final review of the interview: 30' Guided tour and interview: 1.30'.

## Tools

- Local history magazines (paper or digital)
- Photographs and videos (also archival)
- PC or other recording devices

# Example of text on hydraulic factories



## STUDENT CARD 7.1 - THE IRONWORKS

## Activity: Learning from the past

1. Participate in the discussion by presenting your point of view on the following issues:

What is development?

How many types of development do you know? When a development is defined as sustainable? How is sustainability pursued in development? What happens if development is not sustainable?

2. Follow closely the expert's presentation of the case. Take notes and focus in particular on texts that may be useful for further study.

3. Together with your companions, process the interview to be submitted to the property of the chosen site, doing the following aspects emerge:

- the valorisation of water as a precious good
- water management, also in the face of climate change
- future prospects

4. Participate in the comparison and discussion aimed at the elaboration of the final text to be used during the guided tour.

5. Take note of the answers and ask for the permission to register them.

### What can you use?

- Local history magazines (paper or digital)
- Photographs and videos (also archival)
- PC or other recording devices

### You could use text like this:



### What did you use?

Please report the tools you used on the card provided by your teacher.

### What do you need the activity for?

- Observing, analysing and describing the reality under consideration.
- Capturing, interpreting and selecting information
- formulating hypotheses and verifying them through the use and comparison of different sources
- Knowing how to identify problems and formulating targeted questions
- Recognising examples of sustainable development
- Identifying responsible behaviour aimed at protecting and enhancing water.

# 7. WATER AND PRODUCTIVE ACTIVITIES

## TEACHER CARD 7.2 - ART AND TECHNIQUE OF WATER MACHINES: THE EXAMPLE OF THE MILL

For a long time man has discovered that water can move machinery which is suitable for the production of various goods and that, moreover, it can be made constantly available, if properly regimented and channelled. Moreover, it can be used with respect for the environment as it does not produce polluting substances. The proposed activity aims to guide future "ambassadors" to discover how water has been used in their territory to produce energy in a clean way in the milling of agricultural products and to be aware of the importance of these ancient processing methods also for current food production techniques.

### Key competences activated

- functional alphabetical competence
- mathematical competence and competence in science, technology and engineering
- digital competence
- personal and social competence and learning to learn skills
- competence in matters of citizenship

### Objectives

- Observing, analysing and describing the reality under consideration
- Capturing, interpreting and selecting information
- formulating hypotheses and verifying them through the use and comparison of different sources
- Recognising examples of eco-sustainable production in continuity between past and present
- Knowing how to identify their characterising aspects and communicating them through multimedia languages
- Identifying responsible behaviour aimed at protecting and enhancing water and the territory.

## Activities and phases

The activity includes three phases: analysis of a sustainable food production model of the past through the intervention of an expert; training on techniques and phases for the realization of a video; design of a video on the analyzed reality; guided tour of the mill and filming; editing and publication of the film on the school website.

The students will attend a presentation by a local history expert who will illustrate the chosen production reality, also through the proposal of some bibliographical tools, and will guide the students to reread the choices made with a view to environmental sustainability and enhancement, as well as the recovery of the traditional techniques of milling cereals and other typical local products.

Afterwards, students will follow a short training course on the techniques and phases of planning and making

a video.

The students, with different roles, assigned according to their skills, under the supervision of an expert, make a video on the milling technique to be shot during the guided tour of the chosen site. In the film they will have to go into some aspects in depth, such as, for example water management and supply systems, milling tools and techniques, finished products.

The filming, carried out according to the method designed during the guided tour of the chosen site, will be edited by the identified students under the supervision of the expert. The film will be published on the school's website.

## Times

Case study: 1h Training course on video design and production: 1h Video design: 1h Guided tour and filming: 1'h Editing: 1h

## Tools

- Local history magazines (paper or digital)
- Photographs and videos (also archival)
- Camcorder
- PC for editing

Case study example: the didactic mill of Orsigna (Italy):



STUDENT CARD 7.2 - ART AND TECHNIQUE OF WATER MACHINES: THE EXAMPLE OF THE MILL

1. Follow carefully the presentation of the case proposed by the expert. Take notes and focus in particular on texts that may be useful for further study.

2. Together with your companions follow the training course on the phases and techniques of designing a video.

3. Depending on the aspect that you will have to take care of, contribute to the design of the video on the milling technique that will be shot during the guided tour of the chosen site.

In the film you will have to go into some aspects in depth, such as, for example:

-the water management and supply systems;

-milling tools and techniques;

-finished products.

4. Follow the guided tour carefully and, if it is a task assigned to you, carry out the filming. 5.Take part, for the part of your competence, in the editing of the video (music, graphics, end credits with the bibliographical materials used).

A place you could visit: the didactic mill of Orsigna (Italy).



### What can you use?

- Local history magazines (paper or digital)
- Photographs and videos (also archival)
- Recording camera
- PC for video editing

### What did you use?

Please note the tools you used on the card provided by your teacher.

### What do you need the activity for?

- Observing, analyzing and describing the reality under consideration.
- Capturing, interpreting and selecting information
- formulating hypotheses and verifying them through the use and comparison of different sources
- Recognizing examples of eco-sustainable production in continuity between past and present
- Knowing how to identify their characterizing aspects and communicating them through multimedia

languages

• Identifying responsible behavior aimed at protecting and enhancing water and the territory.

## 8. WATER AND ENERGY

### TEACHER CARD 8 - HYDROELECTRIC ENERGY

For a long time man has discovered that water can make move instruments suitable for producing different goods.

The last stage, in order of time, of this particular aspect of the relationship between man and water is the use of the power of water to produce electricity. The proposed activity is intended to guide future "ambassadors" to discover how water has been used on their territory to produce hydroelectric power (or is planned to do so) and also to reflect on the sustainability of this use of water.

### Key competences activated

- functional alphabetical competence
- mathematical competence and competence in science, technology and engineering
- digital competence
- personal and social competence and learning to learn skills
- competence in matters of citizenship

### Objectives

- Observing, analysing and describing the reality under consideration
- Capturing, interpreting and selecting information
- formulating hypotheses and verifying them through the use and comparison of different sources
- Acquiring awareness of the relationship between man and water in one's own territory
- Exposing and support your opinion in an effective way
- Identifying responsible behaviour aimed at protecting and enhancing water.

### Activities and phases

The activity includes three phases: the acquisition of knowledge about hydropower production, the mapping of hydropower production on the territory, the discussion (through the debate technique) on the environmental sustainability of hydropower production.

Students follow a frontal lecture given by a lecturer or external expert on the way in which water is used to produce hydroelectric power.

The frontal lesson can be replaced by a guided tour of a hydroelectric power plant.

Divided into pairs or small groups, they draw up a graphic representation of hydropower production using notes and possible in-depth materials.

The representation is shared with the other students and possible additions are made.

The students, divided into pairs or small groups, document hydroelectric power generation in their own area. Each pair or small group deals with one of the following aspects:

census of existing plants

history of existing plants (conversion/new construction) census of planned plants

history of the designed systems (with possible reasons for the lack of realization)

At the end of the documentation phase, the spokespersons of each pair or small group, using the Google My maps application, trace the presence of the hydroelectric plants on the territory using different colours for

existing or converted plants and a special symbol for those not built. The map is shared with the other future "ambassadors".

The students are then divided into two teams: one team must identify at least four reasons in favour of the use of hydropower on the territory, the other team must identify at least four reasons against. Within each team, the students are asked to present their arguments.

At the end, the strength of each argument are identified and a short report is prepared (minutes) of the discussion, to be shared with the other future "ambassadors".

### Times

Frontal lesson/guided tour: 1.30'/2h Identification of pairs or groups: 10'. Processing of the graphic representation: 1/1.30'h Documentation on the territory: 1.30'/2h per group Processing of the map: 1h Debate: 1.30'/2h

### Tools

- Frontal lesson or guided tour
- In-depth texts on hydropower (paper or digital)
- Local history magazines (paper or digital)
- Newspapers in paper or digital format
- Photographs and videos (also archival)
- PC or other devices
- Google My maps application

Example of a useful site. For further information: homepage of <u>www.progettodighe.it</u>.



Environmental impact of hydroelectric power plants: a satirical text on the construction of the Suviana dam, in Italy.

(20s of the 20th century)

... We are the Engineers
electrification,
very quickly
here we raise a wall.
They send us from Rome to make a great basin, or river, miserable Rhine, let us make you a basin.
Bound, imprisoned, you must serve us by our works
the wheel will turn.

Example of archival video: the film dating back to September 1934 on the construction of the Suviana dam made by the Istituto LUCE.

patrimonio.archivioluce.com/luce-web/detail/IL5000015658/2/opere-del-regime-implants-hydroelectrics-rail ways-state-diga-suviana.html

### STUDENT CARD 8 - HYDROELECTRIC ENERGY

### Activity: Light from water

To discover the "white coal" and say what you think about it, follow these instructions.

1. Follow the lesson or guided tour carefully. Take notes and if necessary ask permission to photograph the slides or what you are shown during the visit.

2. With the help of in-depth texts provided by your teacher, draw up a graphic representation (diagram or drawing) of how water is used to produce hydroelectric power.

3. Document the hydropower aspect in your assigned territory. Attention! You may discover that for at least a century people have been thinking about environmental impact (satirical poetry about the construction of the Suviana dam, Italy, dating back to the 1920s):

... We are the Engineers of electrification, very quickly here we raise a wall.

They send us from Rome to make a great reservoir, oh river, miserable Reno, let us make a basin out of you. Bound, imprisoned, you will have to serve us forced by our works the wheel you will turn.

4. If you are a spokesman, work out a map of the hydroelectric power in your territory. Remember to use different symbols and/or colours for:

- existing plants of new construction
- existing plants that were used to produce other assets and have been refurbished to produce hydroelectric power
- plants that were designed but not finished or started up
- 5. Together with your teammates you will find at least four reasons in favour of hydropower generation

or at least four arguments against it, depending on the team you belong to.

6. Speak your argument

7. Participate in the discussion for the identification of the most convincing arguments and the elaboration of the report (minutes) of the debate.

## What can you use?

- In-depth texts on hydropower (paper or digital)
- Local history magazines (paper or digital)
- Newspapers in paper or digital format
- Photographs and videos (also archival)
- PC or other devices
- Google My maps application

Example of a useful site for further information: homepage of www.progettodighe.it.



### What did you use?

Report the tools you used on the form provided by your teacher.

### What do you need the activity for?

- Observing, analysing and describing the reality under consideration.
- Capture, interpret and select information
- formulating hypotheses and verifying them through the use and comparison of different sources
- Acquire awareness of the relationship between man and water in your territory
- Expose and support your opinion in an effective way
- Identify responsible behaviour aimed at protecting and enhancing water.

9. WATER AND TRANSPORT

## TEACHER CARD 9 - WATER AND TRANSPORT

Transport on water has been exploited by man for a very long time, both to move around and to circulate goods. The proposed activity guides future "ambassadors" to discover the relationship between water and transport in their own territory, including the reasons why water is not (or is no longer) used for transport and indications for future possibilities.

## Key competences activated

- Functional alphabetical competence
- Digital competence
- Personal and social competence and learning to learn skills
- Competence in matters of citizenship

## Objectives

- Observing, analysing and describing the reality under consideration
- Capture, interpret and select information
- formulating hypotheses and verifying them through the use and comparison of different sources
- Acquire awareness of the relationship between man and water in one's own territory
- Identify responsible behaviour aimed at protecting and enhancing water.

### Activities and phases

The activity is aimed at a group of students whose size varies according to the water transport situation in the area.

The students divided into two pairs or two small groups learn about the following aspects:

- current situation of water transport in the territory and its motivations
- past situation of water transport in the territory and its motivations

Each couple or small group prepares a presentation focusing on the following points:

- presence/absence of transport on water
- causes (physical, economic, social...)
- environmental impact (on water if present, on the rest of the ecosystem if absent)

The presentation is shown to the classmates.

A moment of comparison follows in which the current situation is compared to the past, identifying possible transformations, causes of these transformations, possibilities for the future.

If the reality of reference allows it, the possibilities for the future can be the subject of an activity of debate.

A short concluding report is prepared to be shared with the other future "ambassadors".

## Times

Identification of pairs or small groups: 10' Documentation: 1/3h according to the reality of reference Preparation of the presentation: 1/2h Presentation display: 10/20' Comparison: 30'/1.30h (if debate is expected) Final report processing: 1h

## Tools

- Photographs (also vintage)
- Interviews

- Newspapers in paper or digital format
- Paper or digital local history magazines
- Prints/squares

Example of an historical document relating to navigation: the Battiferro lock on the Navile canal fed by the Reno (Bologna, Italy).



### Activities: discovering water transport

To discover the relationship between water and transport in your territory, follow these instructions.

1.Document the water transport situation in your area in the period assigned to you.

Warning: you may also have some surprises (for example, a port in an inland city like Bologna).



- 2. Try to identify the causes of the situation (e.g. amount of water, currents, economic convenience, ....).
- 3. Prepare a presentation for your companions in which you show the situation and its causes.
- 4. Give the presentation to your peers (you have about 10').

### What can you use?

- Photographs (also vintage)
- Interviews
- Newspapers in paper or digital format
- Paper or digital local history magazines
- Prints/squares

### What did you use?

Please note the tools you used on the card provided by your teacher.

### What do you need the activity for?

- Observing, analysing and describing the reality under consideration.
- Capture, interpret and select information
- formulating hypotheses and verifying them through the use and comparison of different sources

- Acquire awareness of the relationship between man and water in one's own territory
- Identify responsible behaviour aimed at protecting and enhancing water.

### 10. WATER USE: FROM CONFLICT TO CONTRACT

### TEACHER CARD 10.1 - WATERS AND CONFLICTS

The use of water has been, and still is, at the centre of conflicts (in some cases even armed) between subjects and between communities, including States. The proposed activity aims at guiding future "ambassadors" to discover the conflicts that have affected and affect the waters of their territory and to make them reflect on possible instruments for the prevention of future conflicts.

### Key competences activated

- functional alphabetical competence
- digital competence
- personal and social competence and learning to learn skills
- competence in matters of citizenship

### Objectives

- observe, analyse and describe the reality under consideration
- acquire, interpret and select information
- formulating hypotheses and verifying them through the use of a specific type of source
- acquire awareness of the relationship between man and water in one's own territory
- identifying responsible behaviour aimed at protecting and enhancing water resources

### Activities and phases

Students are divided into pairs or small groups. Each pair or small group is assigned to different materials (photographs, parts of books, newspaper articles, internet sites...).

Using the materials assigned, each couple or small group must identify conflict situations related to the use of the waters of their territory. For each situation identified, they must prepare a descriptive sheet containing the following elements:

- date (also approximate)
- protagonists
- reason for conflict
- type of conflict
- consequences
- solutions/agreements

At the end of the documentation phase, each pair or small group prepares a timeline on which it places the conflicts using different symbols for the different types.

Each couple or small group presents their own timeline to their companions.

There follows a moment of comparison, at the end of which the data present on each timeline are eventually integrated, building a single one.

Students are then invited to reflect (individually or in pairs) on one of the conflict situations identified and to write a short text explaining which tools and/or actions could have prevented the conflict.

The texts are compared and a multimedia concept map of conflict situations and means of prevention is drawn up together.

### Times

Identification of pairs or small groups: 10' Search and filing: 1.30'/2.30'h Timeline construction: 1h Presentation: 10'' Comparison and possible integrations: 30' Identification of prevention instruments/actions: 15'. Concept map elaboration on conflict and conflict prevention: 30'/1h

### Tools

- Manuals or essays on history (also local)
- Magazines of local studies (paper or digital)
- Newspapers (in paper or digital format)
- Photographs (also vintage)
- Pictures/Prints
- Graphical timeline model (also available free of charge, e.g. Padlet)
- Software for the elaboration of multimedia concept maps

Example of conflict: maintenance versus protection of the river. Environmental damage caused by emptying the Pavana hydroelectric basin in the upper reaches of the Reno (Italy, 2020).



STUDENT CARD 10.1 - WATERS AND CONFLICTS

### Activity: Water and conflicts: an old story

To reconstruct the history of water conflicts in your area, follow these instructions.

1. Document yourself using the materials assigned to you by your teacher.

2. For each conflict you find, fill in the descriptive sheet given to you by your teacher.

3. Construct your own timeline: you can use different symbols to distinguish the types of conflicts you found news about. You might find a news item like this:

Maintenance vs. protection of the river: environmental damage caused by emptying the reservoir of Pavana reservoir in the upper reaches of the Rhine (29 July 2020)



4. Present your timeline to your classmates (you have about 10').

### What can you use?

Your teacher can give you one of these materials to study:

- Handbooks or essays on history (including local history)
- Journals of local studies (print or digital)
- Newspapers (paper or digital)
- Photographs (including old ones)
- Pictures/prints

To build the timeline you can use one of the templates available on the web (e.g. Padlet, Canva,...).

### What did you use?

Write down the tools you used on the sheet provided by your teacher.

### What is the activity for?

- to observe, analyse and describe the reality in question
- acquire, interpret and select information
- to formulate hypotheses and verify them through the use of a specific type of source
- acquire awareness of the relationship between man and water in your territory
- identify responsible behaviours aimed at the protection and enhancement of water

### TEACHER CARD 10.2 - SHARED WATER MANAGEMENT

In opposition to the tendency towards conflict in water management, a tendency has developed to seek the most shared management possible. Thus, in relatively recent years, the experience of "river contracts" was born, and subsequently also "coastal contracts", "lake contracts", "marsh contracts". The proposed activity intends to guide the future "ambassadors" to discover the ways in which shared water management can be created and to start thinking about some possible concrete proposals for their own territory.

### Key competences activated

- functional literacy
- digital competence
- personal, social and learning to learn competence
- citizenship competence

## Objectives

- to acquire, interpret and select information
- to formulate and support opinions effectively
- to become aware of the relationship between man and water in one's own territory
- to identify responsible behaviour aimed at protecting and enhancing the value of water

## Activities and phases

The activity is divided into two phases, the first aimed at the acquisition of the key principles of shared water management, the second at the formulation of a proposal for the management of water in their area through a process inspired by the debate technique.

Students follow a frontal lesson on shared water management. The lesson can be given by a teacher or an external expert.

They are then divided into pairs or small groups and each pair or small group, on the basis of their notes and some texts, draws up a multimedia concept map relating to the key principles of shared water management. Each map is presented to the classmates.

This is followed by a moment of discussion, at the end of which the contents of the different maps are integrated, if necessary, into a single map.

The students are then divided into pairs. Each pair writes, in a very concise way, a proposal concerning the management of water in the territory.

The pairs exchange texts. One of the two students has to identify at least two arguments in favour of the proposal received, the other at least two arguments against it. Each presents their arguments orally. This is followed by a moment of discussion in which the most convincing arguments are identified and a ranking of the proposals is prepared to be shared with the other future "ambassadors".

### Tools

- frontal lesson
- In-depth study texts (paper or digital)
- multimedia concept-mapping software

## Time

Frontal lesson: 1.30'/2h Elaboration of the multimedia concept map: 1.30'/2h Presentation of the map: 10'. Comparison and integration of the maps presented: 30' Activities based on the debate model: 1.30'/2h

# Example of an in-depth study tool: homepage of the website www.contrattidifiume.it



## STUDENT CARD 10.2 - SHARED WATER MANAGEMENT

To find out about shared water management and then make a proposal, follow these instructions. Listen carefully to the lesson and take notes.

Go through the parts of your notes that you think are most important (possibly discuss them with the teacher).

Draw up a multimedia concept map showing the principles of shared water management.

Present your map to your classmates (you have 10 minutes).

Discuss with your classmate a proposal for improving water management in your area and then write it down (you have 10').

Pass your paper to two other classmates and take their paper.

Read what is written there and think of two reasons against or for (the teacher tells you) the proposal you have received. You can make a list.

Present your reasons verbally to your classmates.

## What can you use?

- in-depth texts (paper or digital)
- software for making multimedia concept maps

You can find some useful texts at www.contrattidifiume.it. Here is the home page:



### What did you use?

Write down the tools you used on the sheet provided by your teacher.

### What is the activity for?

- to acquire, interpret and select information
- to formulate and support opinions effectively
- acquire awareness of the relationship between man and water in your own territory
- identify responsible behaviour aimed at protecting and enhancing water

### 11. THE DOUBLE FACE OF WATER

### TEACHER CARD 11.1 - WATER AND WELLNESS

Since ancient times, man has always associated the presence of water in his territory with wellbeing: water guarantees agricultural production, hygiene and purification and sometimes has specific therapeutic properties. The proposed activity aims to guide the future "ambassadors" to discover the way in which man has associated and continues to associate water with his own well-being, both material and non-material.

#### Key competences activated

- functional literacy
- digital competence
- personal, social and learning-to-learn competence

• cultural awareness and expression competence

## Objectives

- To observe, analyse and describe reality
- To acquire, interpret and select information
- To formulate hypotheses and verify them through the use and comparison of different sources
- To acquire awareness of the relationship between man and water in one's own territory

### Activities and phases

The activity consists of three phases: documentation, processing of the data collected and restitution. The students, individually or in pairs, carry out a bibliographic research on one of the following themes

- water and the sacred sphere in ancient times
- water and the sacred sphere in the Middle Ages
- water and the sacred sphere in modern and contemporary times
- popular traditions related to water
- health properties associated with water and its use over time

At the end of the research, they deepen the results with 'field' experiences such as visits to excavations, museums, churches, monuments and other significant places and/or interviews. During the field experiences, students fill in observation sheets, take photographs and/or videos.

After the field experiences, students prepare a presentation and present it to their peers. This is followed by a moment of discussion, at the end of which a multimedia concept map is drawn up on the relationship between water and well-being in the area.

The concept map is shared with the other future "ambassadors" (possibly by uploading it to the appropriate page on the school website or using the newsletter form).

## Time

Bibliographic research: 1/3h Field experience: 1/3h Elaboration of the presentation: 1.30'/2h Presentation to the class: 10/15' Comparison and elaboration of the map: 1/1.30'h

## Tools

- Books or magazines on local history (paper or digital)
- Guides (paper or digital) to excavations, museums, monuments, other places of interest
- Observation cards
- PC or other presentation devices
- Software for constructing multimedia concept maps

### Example of observation sheet for sacred construction

PLACE (possible coordinates)	
TYPE OF CONSTRUCTION	
DATE (referring to what is visible)	
POSITION OF WATER IN RELATION TO THE	

CONSTRUCTION	
FUNCTION OF THE WATER IN RELATION TO THE CONSTRUCTION	

### Example of observation sheet for objects intentionally associated with water

POSITION OF THE OBJECT IN RELATION TO THE WATER (immersed, close) TYPE OF OBJECT (anatomical votive offering, statuette, etc.)	
MATERIAL OF THE OBJECT	
DATING OF THE OBJECT	
MEANING OF THE OBJECT	
CONTEXT (presence and number of similar objects, etc.)	

Example of ancient sacred area associated with water: the Etruscan fontile sanctuary of Kainua (Bologna, Italy).



Example of a Christian sacred building associated with water: the ancient baptistery of Lizzano in Belvedere (Bologna, Italy).



Example of the current use of water for wellness: the Spa of Porretta Terme (Bologna, Italia).



# STUDENT WORKSHEET 11.1 - WATER AND WELLNESS

For your journey to discover the relationship between water and wellbeing in your area, follow these instructions. Carry out a bibliographical research on the topic assigned to you (alone or with a partner). Take notes and write down a list of museums, churches, monuments and other places in your area that you can visit to explore what you have learnt (if the list is very long, talk to your teacher to choose one or more

particularly interesting destinations). Visit the destination(s) you have identified: take photographs, make videos (including interviews), fill in the observation sheets given to you by your teacher. Here are some realities you might encounter:

Prepare a presentation for your classmates (you will have about 15 minutes to present it).

### What can you use?

- Books or magazines on local history (paper or digital)
- Guides (paper or digital) to excavations, museums, monuments, other places of interest
- Observation cards
- PCs or other presentation devices
- Software for constructing multimedia concept maps

### Example of observation sheet for sacred construction

LUOGO (eve	ntuali coo	rdinate)			
TIPO COSTRUZIONE					
DATA (riferita	a a quanto	o visibile)			
POSIZIONE	DELLE	ACQUE	RISPETTO		
ALLA COSTRUZIONE					
FUNZIONE	DELLE	ACQUE	RISPETTO	ALLA	
COSTRUZIONE					

### Example of an observation sheet for objects intentionally associated with water

POSITION OF THE OBJECT IN RELATION TO THE	
WATER (immersed, close)	
TYPE OF OBJECT	
(anatomical votive offering, statuette, etc.)	
MATERIAL OF THE OBJECT	
DATING OF THE OBJECT	
MEANING OF THE OBJECT	
CONTEXT	

Example of ancient sacred area associated with water: the Etruscan fontile sanctuary of Kainua (Bologna,

Italy).



Example of a Christian sacred building associated with water: the ancient baptistery of Lizzano in Belvedere (Bologna, Italy).



Example of the current use of water for wellness: the Spa of Porretta Terme (Bologna, Italia).



11. THE DOUBLE FACE OF WATER

## TEACHER CARD 11.2 - WATER AND DESTRUCTION

The relationship between man and the waters of his territory is not always peaceful: sometimes the waters cause more or less serious damage. The proposed activity aims to introduce the future "ambassadors" to the negative side of the relationship between man and water, to make them reflect on how, over time, man himself has become and is increasingly becoming the real culprit of the damage caused by water.

### Competences

- functional literacy
- digital competence
- personal, social and learning to learn competence
- citizenship competence
- cultural awareness and expression competence

### Objectives

- To observe, analyse and describe reality
- To acquire, interpret and select information
- To formulate hypotheses and verify them through the use and comparison of different sources
- To acquire awareness of the relationship between man and water in one's own territory
- Identify responsible behaviour to protect and enhance water.

### Activities

The students, divided into small groups, carry out research into the negative events caused by water in their area.

For each event on which they find information, they construct a descriptive sheet indicating

- place
- year
- type of event
- consequences
- causes of the event

Students can enrich the description sheet with images.

Using the Google *My Maps* application, they create a map of the area on which they report the results of their research, using different colours for natural events and those caused (even indirectly) by man. Each group presents the map to the other students.

This is followed by a moment of discussion, at the end of which a report is drawn up for the other future "ambassadors", in which they discuss the situation with each other.

"This is followed by a discussion, at the end of which a report is drawn up for the other future 'ambassadors', highlighting man's responsibility for negative events.

## Time

Research: 2h Worksheet elaboration: 1/2h Map elaboration: 1-1.30'h Presentation: 10/15' Comparison: 30' Elaboration of the report: 1h

### Tools

• Newspapers (paper and digital format)

- Local history magazines (paper or digital)
- Reports on hydrogeological instability on the website of the Region or other bodies
- PC or other devices
- Google My Maps application

Example of a negative event: flooding of a channel derived from the Reno river (Bologna, Italy) in November 2019



## STUDENT CARD 11.2 - WATER AND DESTRUCTION

Follow these instructions on your journey to discover water damage and human responsibility.

### Instructions

- 1. Research water damage in your area.
- 2. For each event, fill in the form given to you by your teacher, including, if available, a photograph like this one:



- 3. Using tools such as Google *My Maps*, construct a map of the damage you have found out about and use different colours to locate natural damage and damage for which humans are also indirectly responsible (climate change).
- 4. Present your map to the class (you have about 10').

### What can you use?

- Newspapers (paper and digital format)
- Local history magazines (paper or digital)
- Reports on hydrogeological instability on the website of the Region or other bodies
- PC or other devices
- Application such as Google *My maps*

### Example of a description sheet

LOCATION	
DATE	
TYPE OF EVENT (flood, landslide, collapse,)	
CONSEQUENCES	
CAUSES	

### What did you use?

Write down the tools you used on the sheet provided by your teacher.

### What is the purpose of the proposed activity?

- To observe, analyse and describe reality
- To acquire, interpret and select information
- Formulate hypotheses and verify them through the use and comparison of different sources
- Acquire awareness of the relationship between man and water in one's own territory
- To identify responsible behaviour aimed at protecting and enhancing water.

### 12. WATER AND (ECO)TOURISM

## TEACHER CARD 12.1 - DISCOVERING ECOTOURISM

In recent years there has been a great deal of awareness of environmental protection, safeguarding cultural heritage, traditions and responsible development among the population because it has a direct bearing on the wellbeing of the planet, both our own and that of future generations.

The desire has emerged for travellers to engage in sustainable tourism that involves managing resources in such a way that economic, social and landscape needs can be met while maintaining cultural values and ecological processes.

Tourism activities can be labelled as sustainable when they are developed in a location in a way that does not alter the natural, social and artistic environment without hindering the development of the local host community.

The river and all the activities connected to it, both for "economic" growth and leisure, will be the primary source of inspiration for creating a proposed itinerary to be carried out in the area with the aim of enhancing the many facets of the waterway.

It will therefore be a multidisciplinary didactic unit involving both the Italian language and civic education topics such as respect for the environment and traditions, for the enhancement of tourism that has the river as its primary resource.

### Key competences activated

- functional literacy
- personal, social and learning-to-learn competence
- competence in cultural awareness and expression
- digital competence
- citizenship competence

### Objectives

- to be able to interpret a literary text and grasp the key issues
- to be able to interpret a source with civic and legal significance
- to respect the turn to speak and the opinions of others
- making realistic and reasoned assessments
- communicating one's own opinion effectively
- respecting the turn of phrase and the opinions of others
- understand the importance of environmental protection and development
- to understand the needs of a tourist who is aware of sustainability and respect and to produce a sketch of him/her.
- to be able to communicate an awareness-raising concept through a video
- to acquire digital skills

### Activities and fases

The activity is divided into three phases: in the first introductory lesson the students are presented with a literary text whose predominant theme is the relationship that man has with the environment, the way in which interaction is created between the natural world and human life. At the end of the reading of the text, the students are asked to comment on the passage in order to grasp the first aspects of respect and appreciation of the environment.

In the second phase, students are presented with a legal source created in an international context to understand the policies to be followed in terms of sustainability applied to tourism.

In the third phase the students have to discuss in groups to understand what lifestyles and needs eco-sustainable tourists have and brainstorm to collect the predominant considerations. To conclude the activity, pupils have to make a sketch of the eco-tourist and the activities to be carried out in line with responsible tourism by creating a promotional video.

For the creation of the video, the pupils are divided into groups that will deal with

- images and scenes to be used
- music, sounds and dialogues
- final assembly TIME
- Reading and discussion of the texts 2 h 30
- Gathering ideas to create the content of the video 1 h 30
- Creating and editing the promotional video 3 h

## Tools

- texts provided by the teacher
- pen and notebook to collect the necessary information
- video camera or smartphone for making a video if necessary or for taking photographs and recording dialogues
- PC and application for video editing

### STUDENT CARD 12.1 - DISCOVERING ECOTOURISM

- 1. carefully read the texts submitted for you by the teacher
- 2. take an active part in the discussion to understand the basics of responsible and sustainable tourism, contributing with your own ideas and respecting those of others
- 3. take part in the brainstorming that will be useful for editing the video
- take part in the editing of the promotional video respecting your assigned role:
   a. if you are part of the images and scenes group, look for images that are suitable for the theme, take photos of the landscape around your location and shoot scenes that have a promotional tourism value

4.b. if you are part of the sound, music and dialogue group, take part in the research for suitable background music or record the dialogue or the commercial

4.c. if you are part of the final assembly group, take care of collecting the elements composed by the other groups and putting them together to make the finished product

## What can you use?

- texts provided by the teacher
- pen and notebook to collect the necessary information
- video camera or smartphone to make a video if necessary or to take photographs and record dialogues
- PC and video editing application

## What is the activity for?

- being able to interpret a literary text and grasp the key arguments
- interpreting a source with civic and legal significance
- respecting other people's turn to speak and their opinions
- making realistic and reasoned assessments
- communicating one's own opinion effectively
- respecting the turn of phrase and the opinions of others
- understanding the importance of environmental protection and development
- understanding the needs of a tourist who is aware of sustainability and respect and producing their profile
- being able to communicate an awareness-raising concept through a video
- acquiring digital skills

### 12. WATER AND ECOTOURISM

### TEACHER CARD 12.2 - A RIVER TO FOLLOW AND ADMIRE

In the same way that Tour Operators work in teams to create proposals capable of attracting specific targets of tourists, the pupils will also have to work in groups through cooperative learning as it stimulates the students to come up with appealing ideas by putting their own passions and aptitudes at the centre of the discussions, useful for providing a travel proposal that will appeal to the tourist. The ambassadors are therefore called upon to create a proposal for an "experiential itinerary" linked to ecotourism and the watercourse as a primary source where it becomes important not only to visit, sometimes "passively", but the close relationship that is created between the site visited and the tourist who can touch it through activities.

### Active key competences

- functional literacy
- personal, social and learning to learn competence
- competence in cultural awareness and expression
- digital competence
- citizenship competence

### Objectives

- to cooperate and communicate one's own ideas while respecting those of other group members
- to collect and evaluate necessary information
- to plan and organise a visit and activities to be carried out on site in line with the rules of sustainable tourism in order to enhance the primary resource according to the needs of a specific target clientele
- to know how to promote and manage the tourist activity in a foreign language
- knowing how to manage the promotion of the activity
- manage the reception and accompaniment of tourists participating in the visit
- experiential
- digital skills

### Activities and phases

In order to create and implement a proposal for an eco-sustainable experiential visit, it is necessary to envisage several phases.

In the first phase the students, accompanied by the teacher, identify the place and time in which the event is to be held, the route to be followed, the timing and the target group of tourists they wish to address, and then plan the activity or activities/experiences. During this phase the students all participate through a debate and exchange of ideas.

As it is a proposal for an active visit, the students also have to set a maximum number of participants and establish the cost of the visit and identify a project in line with landscape protection to which the proceeds should be allocated.

Under the guidance of the teacher, the students are divided into groups of maximum 3 pupils:

- one group is in charge of the actual planning by checking and tidying up in detail all the information obtained during the class discussion
- one group is in charge of creating the promotional material, both printed and digital, using dedicated

programmes and softwares

- one group is in charge of liaising with trade associations and the municipality to promote the experiential visit proposal. This group is also in charge of liaising with the association to which the proceeds of the day are to be donated and organising press conferences before and after the event.
- one group translates the promotional material into other languages and during the event helps with any foreign participants.
- one group organises the "experiential" activity(s) and provides the necessary materials. An example of an activity could be a walk with muscle arousal and art sketches to represent the landscape, all in time with music. This group also runs the activity during the event.
- one group is involved in reception: it has to provide practical information and assist the tourist during the day

## Time

Class discussion on the feasibility of the event, location and route, timing, target tourists, activity 2h Drafting of the organisational plan 1h 30' Creation of promotional material 2h 30' Organisation of the experiential activities and preparation of the material 2 hours Publicising the event and maintaining contacts 2h Implementation of the event 4h

### Tools

- PC with dedicated software for planning, creation of promotional materials and for contact
- contact details and promotion of the event
- Possible material for the organisation of the activity (canvases and artistic material, speakers for the music)

## STUDENT CARD 12.2 - A RIVER TO FOLLOW AND ADMIRE

- Participate in the discussion and confrontation in class by reporting your idea taking into account the feasibility of the event while respecting the thoughts of the other members of the group. Identify the place and time where the event is to be held, the practicable route, the timing and the target group of tourists you want to address and then plan the activity or activities/experiences, the maximum number of participants, the cost of the day and the association to which the proceeds are to be given.
- Participate in the group work according to your assigned role.
   2.a. If you are in the planning group, check and collate all the information from the class discussion in detail.

2.b. If you are part of the promotional material creation group, create the flyer or brochure of the day using the dedicated software.

2.c. If you are part of the event promotion group, write emails or liaise with trade associations, the municipality for promotion and contact the newspapers for the press conference before and after the event.

2.d If you are part of the group that has to plan and organise the experiential activity, participate in the realisation of the activity by preparing the necessary material.

2.e. If you are part of the hosting group, think about how to organise the management of the group of participants and how to relate to them.

2.f. If you are part of the language translation and reception group, translate the promotional material into the target language and try to develop your basic communication skills.

3. Participate actively in the realisation of the event according to your assigned role.

### What can you use?

- PCs with dedicated software for planning, producing promotional materials and for contact details and promotion of the event.
- Possible material for the organisation of the activity (canvases and art material, speakers for the
- music)

### What do you need the activity for?

- collaborating and being able to communicate one's own ideas while respecting those of the other group members
- collecting and evaluating necessary information
- planning and organising a visit and activities to be carried out on site in line with the rules of sustainable tourism in order to enhance the primary resource according to the needs of a specific target clientele
- knowing how to promote and manage tourist activity in a foreign language
- learning to manage the promotion of the activity
- learning to manage the reception and accompaniment of tourists who join the experiential visit
- developing digital skills

### 13. WATER AND ART

### TEACHER CARD 13.1 - WORKSHOP 1: "A RIVER OF WORDS", POETRY TO TELL WATER

The river and water have always inspired man and have become part of their literary creations, both on a denotative level, as natural or geographical elements, and on a connotative level, embodying ideas, images and metaphors. The proposed activity aims at guiding pupils through the composition of a poem in a collaborative manner, trying as far as possible to "support the processes" (Pozzo) that are activated in the laborious work of writing: gathering ideas, observing patterns, planning the structure, choosing the register, revising form and content. This is a short multidisciplinary didactic unit involving the mother tongue and other foreign languages studied by the pupils (at a B1 level) to discover the river as a poetic object and subject. In terms of reading comprehension and writing skills, cooperative learning offers the opportunity to encourage self-correction and heterocorrection, stimulating the autonomy of the pupils who look at the group for resources to achieve the objectives.

#### Key competences activated

- functional literacy
- personal, social and learning-to-learn competence
- competence in cultural awareness and expression

### Objectives

- to discover the river in literature
- to read and understand texts in different languages
- to collaborate in the research for information, in analysis and synthesis
- to express feelings and moods through writing
- to write a collaborative poetic text

### Activities and phases

The activity is divided into several phases: a short introduction, observation and analysis of models in different languages, the production of verses and the composition of the poem.

In the first lesson, the teacher presents a picture and each pupil writes a post on Padlet (or on a post-it). The teacher reads the words and leads a short reflection, pointing out any repetitions, references to nature, feelings, etc. The teacher points out that the river (and water in general) has always inspired man, stimulating in them the desire to describe it, to capture its essence or to use it as an image of an inner reality. The pupils are then divided into groups and each group is given card 1 and text 1: this involves reading a poem in their mother tongue and carrying out a short analysis. Working in collaborative learning, the following roles are proposed:

spokesperson, time controller, volume controller and secretary.

The spokespeople read the text, the time controllers are responsible for keeping the time and volume

and the secretary reads the activities and notes the group's responses.

In the following lessons, language 1 teacher, together with a foreign language teacher (English, German, French, Spanish, Portuguese,... depending on the text being analysed), distributes the sheets with the activities for observing and analysing poems presenting the river as a natural or geographical element or as a metaphor.

After the examples in the foreign language, a last one in English is proposed (although the original is in Spanish) as it presents basic level morphosyntactic structures and linguistic "patterns" that can be easily replicated by the pupils. The title is "El río/The river" by the young Peruvian Javier Heraud, who died in 1963<sup>9</sup>, a veritable ode to the river which at the end becomes a metaphor for the poem itself. After the plenary reading, the groups are asked to make a brief analysis to be shared in plenary: rhetorical figures, repeating structures, personification of the river.

They are then asked to try to write two or three verses, inspired by the river which flows in their area and expressing personal thoughts and feelings or those of the river itself.

In the last lesson, the pupils present their verses and, within the group, try to compose a verse, possibly adapting the verses a little (modifying punctuation, adding connectors, etc.). Then the spokespeople get together and try to combine the various stanzas to form the complete poem.

If deemed appropriate and if the quality of the composition merits it, the text can be published in the school newspaper, on the school's website and social networks, the municipality, etc.

## Time

Introduction to the theme and group work on the text in the mother tongue: 1h

Groups work on texts in various foreign languages: 3/4h

Presentation and analysis of a model: 1/2h

Reflection and personal production of one/two verses: 30h/1h

Combination of verses into a group verse: 30 min.

Combination of stanzas into a poem: 30 min.

Publication of the poem on the website and on the social pages of the school and the municipality.

## Tools

- Smartphone or any device that accesses Padlet
- Texts in different languages (photocopied, shared on platforms or projected)

STUDENT CARD 13.1 - WORKSHOP 1: "A RIVER OF WORDS", POETRY TO TELL WATER

# A. PRE-READING ACTIVITY

<sup>&</sup>lt;sup>9</sup> For a short biography see <u>https://modernpoetryintranslation.com/poem/the-river-2/</u>


- 1. Look at the picture and think. What word does it suggest to you? It can be an adjective, a noun, an adverb... Then go into the Padlet created by the teacher and write a post with the word you have chosen. (5 min)
- Together with the teacher and your classmates comment on the words. Are there repetitions? Are the words descriptive, or do they express ideas or feelings? What kind of words are they (adjectives, nouns, simple/short,...)? (5 min)
  Now the teacher divides you into groups. If there are four of you, assign yourselves the following roles: spokesperson, time controller, volume controller, secretary. (5 min)
- 3. As a group, try to remember some metaphors concerning the river or water. Write down at least one metaphor and discuss its meaning among yourselves. (5 min)

.....

The spokesperson of each group communicates the metaphor to the rest of the class.

4. Do you know any literary work or song inspired by the river? (2 min)

..... If yes, which one? .....

5. Today and in the next lessons you will have the opportunity to see various poetic texts dealing with the river at different levels: as a geographical and natural element, as a metaphor, as a place of myth. For each text the tasks of each member will be as follows: the spokesperson reads the text, the secretary reads the questions and notes down the group's answers, the controllers pay attention to time and volume.

# **B. READING AND TEXT ANALYSIS IN DIFFERENT LANGUAGES**

#### **ITALIAN TEXT**

I fiumi by Giuseppe Ungaretti (1916) Mi tengo a quest'albero mutilato Abbandonato in questa dolina Che ha il languore Di un circo Prima o dopo lo spettacolo E guardo Il passaggio quieto Delle nuvole sulla luna Stamani mi sono disteso In un'urna d'acqua E come una reliquia Ho riposato L'Isonzo scorrendo Mi levigava Come un suo sasso Ho tirato su Le mie quattro ossa E me ne sono andato Come un acrobata Sull'acqua Mi sono accoccolato Vicino ai miei panni Sudici di guerra E come un beduino Mi sono chinato a ricevere Il sole Questo è l'Isonzo E qui meglio

Mi sono riconosciuto

- Una docile fibra
- Dell'universo
- Il mio supplizio
- È quando
- Non mi credo
- In armonia
- Ma quelle occulte
- Mani
- Che m'intridono
- Mi regalano
- La rara
- Felicità
- Ho ripassato
- Le epoche
- Della mia vita
- Questi sono
- I miei fiumi
- Questo è il Serchio
- Al quale hanno attinto
- Duemil'anni forse
- Di gente mia campagnola
- E mio padre e mia madre.
- Questo è il Nilo
- Che mi ha visto
- Nascere e crescere
- E ardere d'inconsapevolezza
- Nelle distese pianure
- Questa è la Senna
- E in quel suo torbido
- Mi sono rimescolato
- E mi sono conosciuto
- Questi sono i miei fiumi

Contati nell'Isonzo Questa è la mia nostalgia Che in ognuno Mi traspare Ora ch'è notte Che la mia vita mi pare Una corolla Di tenebre

# Text analysis activities:

a. Underline in the text the rivers mentioned by Ungaretti and choose an adjective or noun with which the poet characterises each of them.

.....

b. What is the meaning of the rivers in Ungaretti's poem?

.....

c. Now think back to your own life. Is there a river (a lake, a stream,...) that is part of your memory? Describe it with two words that are meaningful to you and explain them to your groupmates.

.....

#### SPANISH TEXT

de Coplas a la muerte de su padre, copla III, de Jorge Manrique (siglo XV).

Ш

Nuestras vidas son los ríos que van a dar en la mar, que es el morir: allí van los señoríos, derechos a se acabar y consumir; allí los ríos caudales, allí los otros medianos y más chicos; y llegados, son iguales los que viven por sus manos y los ricos.

Text analysis activities:

- a. El poema de Ungaretti se refiere a ríos reales que él ha visto y conocido en su vida, aunque transformados en recuerdos. Aquí en cambio el poeta español Manrique utiliza los ríos como metáfora. ¿De qué? .....
- b. ¿En qué sentido el poeta dice que todos "son iguales"?.....
- c. ¿Qué imagen usa el poeta para expresar dónde acaban los ríos?
  Explicad esta metáfora.
  d. ¿Qué mensaje o sentimientos quiere expresar el autor en vuestra opinión?

.....

# **ENGLISH TEXT**

Composed upon Westminster Bridge by William Wordsworth (1802).

Earth has not anything to show more fair: Dull would he be of soul who could pass by A sight so touching in its majesty: This City now doth, like a garment, wear The beauty of the morning; silent, bare, Ships, towers, domes, theatres, and temples lie Open unto the fields, and to the sky; All bright and glittering in the smokeless air. Never did sun more beautifully steep In his first splendour, valley, rock, or hill; Ne'er saw I, never felt, a calm so deep! The river glideth at his own sweet will: Dear God! the very houses seem asleep; And all that mighty heart is lying still!

# Text analysis activities:

- 1. What place is the title of the poem referring to? Has anyone in your class ever visited it?
- 2. What time of the day is it and why does the poet appreciate it?
- 3. In the last part of the poem a river is mentioned. What river is it and what is it like?
- 4. Focus on the rhetorical figures which are used with regard to the city and try to explain their function.

#### **GERMAN TEXT**

*Die Loreley* by Heinrich Heine (1824).

Ich weiß nicht was soll es bedeuten,

Dass ich so traurig bin;

Ein Märchen aus alten Zeiten,

Das kommt mir nicht aus dem Sinn.

Die Luft ist kühl und es dunkelt,

Und ruhig fließt der Rhein;

Der Gipfel des Berges funkelt

Im Abendsonnenschein.

Die schönste Jungfrau sitzet

Dort oben wunderbar;

Ihr goldnes Geschmeide blitzet,

Sie kämmt ihr goldenes Haar.

Sie kämmt es mit goldenem Kamme Und singt ein Lied dabei;

Das hat eine wundersame,

Gewaltige Melodei.

Den Schiffer im kleinen Schiffe

Ergreift es mit wildem Weh;

Er schaut nicht die Felsenriffe,

Er schaut nur hinauf in die Höh.

Ich glaube, die Wellen verschlingen

Am Ende Schiffer und Kahn;

Und das hat mit ihrem Singen

Die Loreley getan.

# Text analysis activities:

Übung 1: Lies das Gedicht und beantworte folgende Fragen:

- 1) Von wem wird im Text gesprochen?
- 2) Was machen die zwei Hauptgestalten? Unterschreibe die Verben mit zwei verschiedene Farben
- 3) Wer ist die Loreley? Inwieweit ist sie eine verführende Figur?

Übung 2: Der Mythos der Loreley hat viele Künstler inspiriert, die in den verschiedenen Jahrzehnten die Legende neu interpretiert haben

So lautet der Beginn der Legende:

"Ein wunderschönes Mädchens sitzt auf einem Felsen am Rhein und kämmt ihr langes blondes Haar. Dabei singt sie so schön, dass die Schiffer die Felsen und Strudel nicht mehr beachten".

Du bist jetzt dran. Mach die Augen zu. Stell dir vor: Du fährst mit einem kleinen Boot auf einem Fluss und plötzlich wirst du von etwas beeindruckt und verführt und du verlierst die Kontrolle des Bootes.

Beschreibe die Szene und deine Gefühle in einem kleinen Text und erzähle sie mit Rap-Musik im Hintergrund, die du selbst aus dem Internet suchst.

#### **FRENCH TEXT**

Le lac de Alphonse de Lamartine (1820).

Ainsi, toujours poussés vers de nouveaux rivages, Dans la nuit éternelle emportés sans retour, Ne pourrons-nous jamais sur l'océan des âges Jeter l'ancre un seul jour?

Ô lac! l'année à peine a fini sa carrière, Et près des flots chéris qu'elle devait revoir, Regarde! je viens seul m'asseoir sur cette pierre Où tu la vis s'asseoir!

Tu mugissais ainsi sous ces roches profondes, Ainsi tu te brisais sur leurs flancs déchirés, Ainsi le vent jetait l'écume de tes ondes Sur ses pieds adorés.

Un soir, t'en souvient-il? nous voguions en silence; On n'entendait au loin, sur l'onde et sous les cieux, Que le bruit des rameurs qui frappaient en cadence Tes flots harmonieux.

Tout à coup des accents inconnus à la terre Du rivage charmé frappèrent les échos ; Le flot fut attentif, et la voix qui m'est chère Laissa tomber ces mots :

«Ô temps! suspends ton vol, et vous, heures propices! Suspendez votre cours: Laissez-nous savourer les rapides délices Des plus beaux de nos jours!

«Assez de malheureux ici-bas vous implorent, Coulez, coulez pour eux; Prenez avec leurs jours les soins qui les dévorent; Oubliez les heureux.

«Mais je demande en vain quelques moments encore, Le temps m'échappe et fuit; Je dis à cette nuit: Sois plus lente; et l'aurore Va dissiper la nuit.

«Aimons donc, aimons donc! de l'heure fugitive, Hâtons-nous, jouissons! L'homme n'a point de port, le temps n'a point de rive; Il coule, et nous passons!»

Temps jaloux, se peut-il que ces moments d'ivresse, Où l'amour à longs flots nous verse le bonheur, S'envolent loin de nous de la même vitesse Que les jours de malheur?

Eh quoi! n'en pourrons-nous fixer au moins la trace? Quoi! passés pour jamais! quoi! tout entiers perdus! Ce temps qui les donna, ce temps qui les efface, Ne nous les rendra plus!

Éternité, néant, passé, sombres abîmes, Que faites-vous des jours que vous engloutissez? Parlez: nous rendrez-vous ces extases sublimes Que vous nous ravissez?

Ô lac! rochers muets! grottes! forêt obscure! Vous, que le temps épargne ou qu'il peut rajeunir, Gardez de cette nuit, gardez, belle nature, Au moins le souvenir!

Qu'il soit dans ton repos, qu'il soit dans tes orages, Beau lac, et dans l'aspect de tes riants coteaux, Et dans ces noirs sapins, et dans ces rocs sauvages Qui pendent sur tes eaux.

Qu'il soit dans le zéphyr qui frémit et qui passe, Dans les bruits de tes bords par tes bords répétés, Dans l'astre au front d'argent qui blanchit ta surface De ses molles clartés.

Que le vent qui gémit, le roseau qui soupire, Que les parfums légers de ton air embaumé, Que tout ce qu'on entend, l'on voit ou l'on respire, Tout dise: Ils ont aimé!

#### Text analysis activities:

Après la lecture du poème de Lamartine, réfléchissez sur la relation de l'auteur avec le lac.

- 1) Quelle figure on utilise pour permettre le dialogue entre le poète et un élément de la nature?
- 2) Le lac est-il associé à une période triste ou heureuse de la vie du poète? Pourquoi?
- 3) Dans quelle mesure le lac peut-il aider l'homme dans sa relation avec le temps et la mémoire?
- 4) Dans votre groupe, discutez sur la fonction de la nature comme lieu où l'homme peut se réfugier ou comme lieu dangereux duquel l'homme doit se défendre. Quelle est votre opinion?
- 5) Choisissez trois vers qui pour vous mieux représentent ce poème et le but du poète.

# C. FROM READING TO WRITING

Now that you have seen various ways in which the river has entered the literary works of poets to help them express nostalgia, equality in the face of death, myth,... read one last text and prepare for the final task: to produce a collaborative poem.

#### 1. Reading and analysis:

- a. Read the poem "The River" by Javier Heraud.
- b. Look for and underline in the text some parts which have attracted your interest: very short lines, repeated structures, metaphors, alliteration, unusual images...
- c. Why do you think the poet identifies with the river?
- d. Read again the final stanza and write down what the river is associated with. Does this modern poet seem to be taking up the lesson of an ancient one we have already met?

# 2. Production:

- e. Keeping with the theme of the river (perhaps thinking of the river in your area), each of you tries to write two or three lines taking your cue from the structures observed in Heraud's poem. You can express personal ideas or feelings, describe the river, imagine being the river, interpret its thoughts and feelings, and so on.
- f. Present your lines in the group and try together to join them to form a stanza. You can change the punctuation and possibly add connectors or words needed for a better formal and logical rendering.
- g. When all the groups have finished their stanzas, the spokespeople come together and try to combine the stanzas to form a poem.

#### **ORIGINAL TEXT IN SPANISH**

El Río de Javier Heraud (1960)

1

Yo soy un río, voy bajando por las piedras anchas, voy bajando por las rocas duras, por el sendero dibujado por el viento. Hay árboles a mi alrededor sombreados por la lluvia. Yo soy un río, bajo cada vez más furiosamente, más violentemente bajo cada vez que un puente me refleja en sus arcos.

Yo soy un río un río un río cristalino en la mañana. A veces soy tierno y bondadoso. Me deslizo suavemente por los valles fértiles, doy de beber miles de veces al ganado, a la gente dócil. Los niños se me acercan de día, У de noche trémulos amantes apoyan sus ojos en los míos, y hunden sus brazos en la oscura claridad de mis aguas fantasmales. 3 Yo soy el río. Pero a veces soy bravo y fuerte pero a veces no respeto ni a la vida ni a la muerte. Bajo por las atropelladas cascadas, bajo con furia y con rencor, golpeo contra las piedras más y más, las hago una a una pedazos interminables. Los animales huyen, huyen huyendo cuando me desbordo por los campos, cuando siembro de piedras pequeñas las laderas, cuando inundo las casas y los pastos, cuando inundo las puertas y sus

corazones, los cuerpos y sus corazones. 4 Y es aquí cuando más me precipito Cuando puedo llegar а los corazones, cuando puedo cogerlos por la sangre, cuando puedo mirarlos desde adentro. Y mi furia se torna apacible, y me vuelvo árbol, y me estanco como un árbol, y me silencio como una piedra, y callo como una rosa sin espinas. 5 Yo soy un río. Yo soy el río eterno de la dicha. Ya siento las brisas cercanas, ya siento el viento en mis mejillas, y mi viaje a través de montes, ríos, lagos y praderas se torna inacabable. 6 Yo soy el río que viaja en las riberas, árbol o piedra seca Yo soy el río que viaja en las orillas, puerta o corazón abierto Yo soy el río que viaja por los pastos, flor o rosa cortada Yo soy el río que viaja por las calles, tierra o cielo mojado Yo soy el río que viaja por los montes, roca o sal quemada Yo soy el río que viaja por las casas, mesa o silla colgada Yo soy el río que viaja dentro de los hombres, árbol fruta

rosa piedra mesa corazón corazón y puerta retornados, 7 Yo soy el río que canta al mediodía y a los hombres, que canta ante sus tumbas, el que vuelve su rostro ante los cauces sagrados. 8 Yo soy el río anochecido. Ya bajo por las hondas quebradas, por los ignotos pueblos olvidados, por las ciudades atestadas de público en las vitrinas. Yo soy el río ya voy por las praderas, hay árboles a mi alrededor cubiertos de palomas, los árboles cantan con el río, los árboles cantan con mi corazón de pájaro, los ríos cantan con mis brazos. 9 Llegará la hora en que tendré que desembocar en los océanos, que mezclar mis aguas limpias con sus aguas turbias, que tendré que silenciar mi canto luminoso, que tendré que acallar mis gritos furiosos al alba de todos los días, que clarear mis ojos con el mar. El día llegará, y en los mares inmensos no veré más mis campos fértiles, no veré mis árboles verdes,

mi viento cercano, mi cielo claro, mi lago oscuro, mi sol, mis nubes, ni veré nada, nada, únicamente el cielo azul, inmenso, y todo se disolverá en una llanura de agua, en donde un canto o un poema más sólo serán ríos pequeños que bajan, ríos caudalosos que bajan a juntarse en mis nuevas aguas luminosas, en mis nuevas aguas apagadas.

# AN ENGLISH VERSION OF THE TEXT

#### The River

#### TRANSLATED BY TIMOTHY ALLEN

1

I am a river, going down over wide stones, going down over hard rocks, my path drawn by the wind.

The trees around me are shrouded with rain. I am a river, descending with greater fury, with greater violence, whenever a bridge reflects me in its curves.

# 2

I am a river, a river.

A river: clear as crystal every morning. Sometimes I am tender and kind. I slide smoothly through fertile valleys. I let the cattle and the gentle people drink as much as they want. Children run to me by day.

At night, trembling lovers stare into my eyes and plunge themselves into the stark darkness of my ghostly waters.

3

I am a river.

But sometimes I am wild and strong. Sometimes I have no respect for life or death. Cascading in furious waterfalls,

I beat those stones again and again, I smash them into interminable pieces. The animals run. They run. They run when I flood their fields, when I sow their slopes with tiny pebbles, when I

flood their homes and their meadows, when I flood their doors and their hearts, their bodies and their hearts.

#### 4

And this is when I come down even faster: when I can reach into their hearts and grasp their very blood and I can look at them from inside. Then my fury turns peaceful and I become a tree. I seal myself up like a tree and I turn silent as a stone and I go quiet as a thornless rose.

# 5

I am a river.

I am the river of eternal happiness. I feel the neighbourly breezes, I feel the wind on my face, till my journey – across mountains, rivers, lakes and prairies – becomes endless.

#### 6

I am the river that travels along banks, past trees and dry stones, I am the river that surges through your ears, your doors, your open hearts. I am the river that travels by meadows, by flowers, by tended roses, I am the river that travels along streets, across earth, under drenched sky. I am the river that travels by mountains, rocks and burned salt. I am the river that travels through homes, tables, chairs. I am the river that travels inside men – tree, fruit, rose, stone, table, heart, heart, door - everything turned over.

# 7

I am the river that sings to people at midday. I sing before their graves. I turn my face towards those sacred places. 8

I am the river become night.

I go down by the broken depths, by the forgotten unknown villages, by the cities crammed to the very windows with people. I am the river, I flow through the prairies. The trees on my banks are alive with doves. The trees sing with the river, the trees sing with my bird's heart, the rivers sing with my arms.

# 9

The hour will come when I will have to disperse into the ocean, to mix my clean waters with its murky waters. I will have to silence my luminous song, I will have to hush how I babble a hallo to the dawn of each day, I will wash my eyes with the sea. That day will come, and in those immense seas I will no longer see my fertile fields, I will never again see my green trees, my neighbourly breeze, my clear sky, my dark lake, my sun, my clouds, I will see nothing, except that immense blue heaven where everything is dissolved, in that vast expanse of water, where one more song or another poem will mean nothing more than a little river trickling down, or a mighty river coming down to join me, in my new luminous waters, in my newly extinguished waters.

#### 13. WATER AND ART

# TEACHER CARD 13.2 - WORKSHOP 2: "A RIVER OF CREATIVITY", TECHNIQUES TO PERCEIVE AND EXPRESS WATER

The river and water have always inspired man and have become part of their artistic creations, both on a denotative level, as natural or geographical elements, and on a connotative level, embodying ideas, symbols and analogies. The proposed activity aims at guiding the students in the creation of an artistic

product that expresses the feelings they have experienced in the vicinity of the water. In this workshop the pupils have the opportunity to learn about and use different artistic techniques, which once they become "ambassadors" they will pass on to younger students, guiding them to create works to be presented on World Water Day.

# Key competences activated

- functional literacy
- personal, social and learning-to-learn competence
- competence in cultural awareness and expression

#### Skills

- to discover works of art inspired by water
- to observe and understand works of art made using different techniques
- to experience and know how to use an artistic technique
- to express feelings and moods through an artistic technique
- to be able to explain one's choices

#### Activities and phases

The activity is divided into several phases: a short introduction with the observation and analysis of artist's models made with various techniques, practical exercises in the classroom on the use of the various techniques, an open-air creation session near the water with each student making a work, publication of the works on the school website.

The students follow a frontal lesson during which the teacher presents some examples of artistic creations inspired by water, illustrating the techniques and meanings.

The students then choose the technique they find most stimulating and divide into pairs or small groups.

Under the guidance of the teacher and with the help of their partner(s), they carry out exercises to the chosen technique.

Together with the teacher, the students go to the previously identified water environment and, inspired by nature, create their own work using the chosen technique.

#### Example of a painting inspired by the river: Poplars on the Epte by Monet



# Time

- Frontal lesson: 1h
- Formation of groups or pairs: 15'
- Exercises on the use of the techniques: 2 to 3 hours, depending on the complexity of the techniques chosen
- Open-air session: 1h and 30'/2h
- Publication of the works realised or photographs of them (students in charge): 1h

#### Tools

- PC for the presentation of the artist's examples by the teacher and for the publication of the works
- works
- Materials needed for the exercises and for the realisations according to the chosen techniques
- Cameras or smartphones for taking photographs during the en-plein-air session
- Notebooks or smartphones for recording the short interviews

STUDENTS CARD 13.2 - WORKSHOP 2: "A RIVER OF CREATIVITY", TECHNIQUES TO PERCEIVE AND EXPRESS WATER

1. Follow the lesson carefully, observe the images presented and take notes. This is one of the works you could learn about:



- 2. Identify the technique that is most stimulating for you and, in discussion with your classmates, form a small group or pair.
- 3. Participate in the exercises on the use of your chosen technique.
- 4. Participate in the en-plein-air session: be inspired by your feelings and create your own work of art.

#### What can you use?

Your teacher will provide you with the materials you need to master your chosen artistic technique and to create your artwork.

#### What is the activity for?

- to discover works of art inspired by water
- to observe and understand works of art made with different techniques
- to experience and know how to use an artistic technique
- to express feelings and moods through an artistic technique
- to be able to explain your choices

#### PART 2. BECOMING RIVER AMBASSADORS

1. Self-assessment of the training course

# SELF-ASSESSMENT MODULE OF COMPETENCES GAINED DURING THE TRAINING COURSE FOR YOUNG RIVER AMBASSADORS

# STUDENT DATA

Surname and name	Class	Study course and section	Course taken

# PART 1

Complete the table by thinking about what you could do **at the beginning** of your journey to become a 'river ambassador'.

Use this scale: 1 not at all; 2 a little; 3 quite a lot; 4 a lot; 5 very much.

FUNCTIONAL LITERACY COMPETENCE	1	2	3	4	5
(USE OF LANGUAGE)					
Understanding, selecting and processing information sources					
Constructing new information by putting different sources together (e.g. a text, a photo, etc.)					
Communicating effectively using the most appropriate language for the situation and helping with the most suitable tools (e.g. PowerPoint presentations, maps, etc.).					
Communicating in a positive way and with respect for others					
DIGITAL COMPETENCE	1	2	3	4	5
(USE OF NEW TECHNOLOGIES)					
Using digital content correctly and consciously					
Critically selecting digital content					
Creating effective digital content in relation to the purpose					
Sharing digital content effectively					
PERSONAL, SOCIAL AND LEARNING-TO-LEARN COMPETENCE	1	2	3	4	5
(BEHAVIOUR AND WAY OF LEARNING)					
Making proposals and listening to the proposals of others					
Collaborating with other people					
Being motivated in what you do					
Being available to requests and being able to adapt to the situation					
Taking responsibility					

Organising yourself to learn new topics in the most effective way (e.g. summarise, underline, make diagrams, etc.).					
CITIZENSHIP COMPETENCE	1	2	3	4	5
(COMPARISON WITH YOUR REALITY)					
Evaluating media reports					
Participating					

		-			
Making motivated and sustainable proposals					
Identifying the right people to present your proposal to					
COMPETENCE IN CULTURAL AWARENESS AND EXPRESSION	1	2	3	4	5
(HISTORY AND ART)					
Being aware of the importance and history of the cultural heritage of your					
territory					
Understanding, analysing and evaluating a work of art of any kind (literary texts,					
paintings, etc.)					
Expressing your ideas and emotions creatively (poetry, drawing, photo,					
etc.).					
MATHEMATICAL COMPETENCE AND COMPETENCE IN SCIENCE, TECHNOLOGY	1	2	3	4	5
AND ENGINEERING					
(SCIENCES)					
Observing the environment					
Making hypotheses and testing them					
Finding connections between elements and recognising processes					
MULTILINGUAL COMPETENCE	1	2	3	4	5
(FOREIGN LANGUAGES)					
Understanding texts in different languages					
Communicating effectively in different languages using the most appropriate					
words for the situation					
Comparing texts in different languages by finding similarities and differences					

# PART 2

Complete the table by thinking about what you can do now **at the end** of your journey to become a river ambassador.

Use this scale: 1 not at all; 2 a little; 3 quite a lot; 4 a lot; 5 very much.

FUNCTIONAL LITERACY COMPETENCE (USE OF LANGUAGE)	1	2	3	4	5
Understanding, selecting and processing the information sources					
Constructing new information by putting together different sources (e.g. a text, a photo, etc.)					
Communicating effectively using a suitable language for each situation and using the most appropriate tools (e.g. PowerPoint presentations, maps, etc.).					
Communicating in a positive way and with respect for others					

		1			
	1	2	2	4	5
(USE OF NEW TECHNOLOGIES)	1	-			
Using digital content correctly and consciously					
Critically selecting digital content					
Creating effective digital content in relation to the purpose					
Sharing digital content effectively					
		I			
PERSONAL, SOCIAL AND LEARNING-TO-LEARN COMPETENCE (BEHAVIOUR	1	2	3	4	5
AND WAY OF LEARNING)					
Making proposals and listening to others' proposals					
Collaborating with other people					
Being motivated in what you do					
Being available to requests and being able to adapt to the situation					
Taking responsibility					
Organising yourself to learn new topics in the most effective way (e.g.					
summarising, underlining, making diagrams, etc.)					
COMPETENCE IN MATTERS OF CITIZENSHIP	1	2	3	4	5
(COMPARISON WITH YOUR REALITY)	_				
Evaluating the news transmitted by the media	_				ļ
Participating					
Making motivated and sustainable proposals					
Identifying the right people to submit your proposal to	_				
COMPETENCE IN CULTURAL AWARENESS AND EXPRESSION	1	2	3	4	5
(HISTORY AND ART)					
Being aware of the importance and history of the cultural heritage of your					
your territory					
Understanding, analysing and evaluating a work of art of any kind (literary text					
painting, etc.).					
Expressing your ideas and emotions in a creative way (poetry, drawing, photo,					
etc.).					
MATHEMATICAL COMPETENCE AND COMPETENCE IN SCIENCE, TECHNOLOGY	1	2	3	4	5
AND ENGINEERING					
(SCIENCES)					
Observing the environment					
Making hypotheses and testing them					
Finding connections between elements and recognising processes					
MULTILINGUAL COMPETENCE	1	2	3	4	5
(FOREIGN LANGUAGES)	_				
Understanding texts in different languages					
Communicating effectively in different languages using the most appropriate					
words for the situation		-			
I comparing texts in different languages by finding similarities and differences	1	1		1	1

# 2. Evaluation of the training course

# EVALUATION FORM OF THE SKILLS ACQUIRED DURING THE TRAINING COURSE FOR YOUNG RIVER AMBASSADORS

# STUDENT DATA

Surname and Name	Class	Study course and Section	Course taken
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# **COMPETENCES DESCRIPTION**

FUNCTIONAL LITERACY COMPETENCE	Scarce level	Basic level	Medium level	Advanced level	Not assessable
Understanding, selecting and revising sources					
Constructing information by combining different sources					
Effective communication with an appropriate linguistic register and adequate support tools					
Positive and socially responsible communication					
DIGITAL COMPETENCE	Scarce level	Basic level	Medium level	Advanced level	Not assessable
Correct and conscious use of digital content					
Critical selection of digital content					
Creation of effective digital content in relation to the purpose					
Effective sharing of digital contents					
PERSONAL, SOCIAL AND LEARNING -TO-LEARN COMPETENCE	Scarce level	Basic level	Medium level	Advanced level	Not assessable
Proactive communication and listening					
Collaboration					
Motivation					
Willingness and flexibility					
Assumption of responsibility					
Independent organization of learning					
	Scarce level	Basic level	level	Advanced level	Not assessable
Critical use of the media					
Participation					
Skillful selection of the proper interlocutors					

for a proposal			

COMPETENZA IN MATERIA DI	Livello	Livello	Livello	Livello	Non
CONSAPEVOLEZZA ED ESPRESSIONI	scarso	base	medio	avanzato	valutabile
CULTURALI					
Consapevolezza del patrimonio culturale					
locale in dimensione sincronica e diacronica					
Comprensione di messaggio e strumenti					
dell'espressione artistica					
Espressione creativa di sé					
COMPETENZA MATEMATICA E COMPETENZA	Livello	Livello	Livello	Livello	Non
IN SCIENZE, TECNOLOGIA E INGEGNERIA	scarso	base	medio	avanzato	valutabile
Osservazione					
Formulazione di ipotesi e loro verifica					
Individuazione di processi e relazioni					
COMPETENZA MULTI LINGUISTICA					
Comprensione di testi in diverse lingue					
Espressione efficace in relazione allo scopo in					
diverse lingue					
Individuazione di differenze e somiglianze nei					
testi di lingue diverse					
VALUTAZIONE GLOBALE COMPETENZE	Livello	Livello	Livello	Livello	
	scarso	base	medio	avanzato	

# 3. Diploma Ceremony of river ambassadors

[here we may put a sample of a diploma]

# PART 3. RESTITUTION BY RIVER AMBASSADORS

# A. LEADING

# TEACHER CARD 1- YOUNG EXPLORERS OF AQUATIC ENVIRONMENTS

Once they have become "ambassadors", the students are called upon to make the richness of the biodiversity of the aquatic environment of their territory known to younger children. In particular, in collaboration with their teachers, they will organise a didactic outing on the river, during which they will repeat some of the most significant experiences they have had in observing the flora and fauna.

#### Key competences activated

- digital competence
- personal, social and learning-to-learn competence
- scientific competence (as part of mathematical competence and competence in science, technology and engineering)
- citizenship competence

#### Skills

- using the senses to gather information
- caring for nature
- engaging actively in the protection and preservation of nature
- learning to respect all forms of life
- distinguishing the main characteristics of different environments
- exploring the natural environment as an ecological system.

#### Activities and phases

The activity includes a field phase and a classroom phase to discuss and evaluate the ecological conditions of the aquatic environment explored.

The students prepare the field activity by creating, under the guidance of their teacher and in small groups, a short oral presentation of the environment to be explored;

cards containing a "mute" graphic representation of the environment, instructions for collecting finds and samples, instructions for creating a herbarium, paper and/or digital comparison sheets.

The students join the secondary school pupils and together they set off to go to the chosen aquatic environment.

Once on site, two or three spokespeople take turns in presenting its ecological characteristics to the children.

The class of secondary school pupils is divided into small groups (maximum three pupils), identified in advance, and each group is assigned to a "guide".

Each "guide" leads the observation of the terrain, flora and fauna, teaching on the clues to look out for and giving instructions for recording them through photographs and/or through a graphic representation.

Then the secondary school students, again following the instructions of the "guides", collect leaves, plants, berries to build their own herbarium, finds of animal origin to define their habitat and soil samples to represent the geological characteristics of the chosen area.

The young students also record sounds, noises and any bird songs.

Once the finds and samples have been collected and the recordings made, the secondary school students 'interview' their 'guides' in order to obtain some information to fill in the accompanying sheet for each material or group of materials.

After the fieldwork, the "ambassadors", in pairs or small groups, go to the class or classes of secondary school involved and, together with the class teacher, lead a guided discussion of the results of the exploration, trying to bring out in particular

-the type of flora and fauna present in the observed environment;

-the reciprocal link between the type of soil, flora and fauna;

-the balance of the ecosystem observed;

-the degree of human impact (pollution, introduction of alien species).

Secondary school students write a report that is published on their official website.

# Time

- Preparation of the field activity: 1h and 30'/2h
- Field activity: 4/5h
- Guided discussion and report writing: 2h

# Tools

- cameras or smartphones for photographs;
- notebooks for notes and/or graphic representations;
- glass jars of different sizes;
- shovel;
- newspaper sheets (newspaper paper absorbs moisture well);
- digital or paper comparison sheets (by the "guides");
- recorders or smartphones.

# STUDENT CARD 1 - YOUNG EXPLORERS OF THE AQUATIC ENVIRONMENT

- 1. Participate in the activity of preparing the educational outing according to the task assigned to you.
- 2. If you are a spokesperson, participate in the general presentation of the characteristics of the aquatic environment to be observed (you have about 5' for your part).
- 3. Guide the younger pupils in collecting the most important clues about the terrain, flora and fauna; help them by explaining the instructions.
- 4. Guide the younger children in recording sounds, noises, bird songs.
- 5. Answer the questions asked by the youngsters in your charge and also point out any study tools of your choice.
- 6. Together with your classmates or your partner, lead a discussion on the experience in the secondary school class assigned to you. Remember to bring out:
  - -the type of flora and fauna present in the observed environment;
  - -the reciprocal link between the type of soil, flora and fauna;
  - -the balance of the ecosystem observed;
  - -the degree of human impact (pollution, introduction of alien species).
- 7. It helps the young students to draw up the report.

After getting to know the different ways in which waters have inspired and inspire human creativity, in literature and art, the young "ambassadors" are called upon to transfer their experience to younger students. The opportunity could be to organise an artistic-literary contest for secondary school pupils, with the award ceremony coinciding with World Water Day (22nd March).

#### Key competences activated

- functional literacy
- personal, social and learning-to-learn competence
- competence in cultural awareness and expression

# Skills

- to collaborate by communicating ideas effectively and respectfully
- drafting a notice
- to create a flyer
- organising a competition
- teaching what has been learned to younger pupils by selecting information and examples
- evaluating artistic and literary products
- to organise an award event
- organising enhancement and promotion actions

# Activities and phases

The activity is divided into several phases: organisation of the competition with drafting of the call for entries, publication of the call for entries with a poster, educational meetings with the secondary school pupils, collection and organisation of the presentation of the works, evaluation of the works, prize-giving, activities to promote the winning works.

The students carry out a brainstorming activity during which they put forward their proposals concerning:

- participants
- type of works admitted
- Deadline for class registration
- Methods of submitting works
- Criteria for assessing the works submitted
- Composition of the jury
- prizes to be awarded
- deadline for submitting works

At the end of the competition, a notice is written under the guidance of the teacher and a poster is produced to publicise the competition. Both are then sent to the local secondary schools.

After the announcement is published, the students in small groups go to the classes that have registered. During the meeting, they illustrate the techniques that can be used by means of some models and through the narration of their own experience with the possible presentation of what they have created.

At the indicated deadline, the students collect the works they have produced and organise their presentation, identifying the location and method.

The jury will assess the best works according to the criteria set out in the call for entries.

On World Water Day, student spokespeople award prizes to the winning entries, briefly justifying their choice.

Finally, the students are responsible for carrying out activities to promote the winning works (e.g. publication on local websites or magazines, publication on the schools' social channels, display in libraries or other public places).

# Time

- Brainstorming activities: 1h Drafting of the call for entries: 1h
- Preparation of the flyer: 30'
- Preparation of the intervention in secondary schools: 1h
- Intervention at secondary schools: 1.30h
- Collection of competition materials and organisation of the exhibition: 1h
- Evaluation of competition entries: 1h
- Award ceremony: 15'.
- Organisation of the promotion of the winning works: 1.30h

# Tools

- PC to write the announcement and the competition flyer (software such as Canva could be useful for the preparation of the flyer)
- literary texts and reproductions of works of art inspired by the river provided by the teacher or identified by the students
- PC and projector for the presentation to secondary school students, if necessary
- works created by the secondary school students
- any panels or other supports for displaying the artworks

#### STUDENT CARD - CREATIVITY CONTEST

- 1. Participate in the brainstorming activity on the organisation of the creativity competition, by proposing your opinion on:
- > participants
- > type of works admitted
- ➤ deadline for classes to register
- methods of presenting the works
- criteria for evaluating the works submitted
- composition of the jury
- ➤ prizes to be awarded
- deadline for submitting works
- 2. Participate in the collective drafting of the announcement of the creativity competition
- 3. submit your ideas for a flyer advertising the competition

- 4. Together with your group mates, prepare a presentation (preferably multimedia) for secondary school students. In the presentation you will have to introduce: the techniques that can be used for the works to be presented in the competition one or two artistic creations inspired by water your experience during the workshops followed during the training phase creative works on the theme of water made during the workshops.
- 5. You have about 1 hour and 15 minutes (please allow time for questions).
- 6. Participate in the collection of works produced by your younger peers and present your ideas to your peers on how and where to display them.
- 7. If you are a member of the jury, give reasons for your opinion on the works submitted.
- 8. If you are a spokesperson for the award ceremony, prepare a short justification for your judgement.
- 9. Together with your classmates and your teacher, identify one or two ways of highlighting the winning entries and supervise their implementation.

# What can you use?

- PC to write the announcement, the competition flyer (you could use software such as Canva to prepare the flyer) and prepare your multimedia presentation
- literary texts and reproductions of works of art inspired by the river provided by the teacher or chosen by you
- any pcs and projectors for the presentation to secondary school students
- works created by the secondary school students
- any panels or other supports for displaying the works
- tools chosen for the promotion activity

#### What is the activity for?

- collaborating by communicating your ideas effectively and respectfully
- drafting a call for proposals
- creating a flyer
- organising a competition
- teaching what you have learnt to younger children by selecting information and examples
- evaluating artistic and literary products
- organising an award event
- organising enhancement and promotion actions

# TEACHER CARD 3 - ORGANISATION OF GUIDED TOUR

After learning about the different ways in which mankind has dealt with water over time, for various purposes, the young "ambassadors" are asked to choose a particularly significant place, discussed during

their training, in which to organise a guided tour for the citizens. This will be an opportunity to make the community aware of the importance of water in the life of the area.

# Key competences activated

- functional literacy
- personal, social and learning-to-learn competence
- competence in cultural awareness and expression

# Skills

- to cooperate by communicating one's own ideas effectively and respectfully
- to collect and evaluate information in relation to a purpose
- to draw up an organisational plan for a guided tour
- to create publicity materials
- writing an informative article
- manage the various stages of welcoming visitors (presentations, instructions on how to proceed with the visit...)
- communicate their knowledge effectively, also using appropriate multimedia supports
- organising actions to enhance and promote a site.

# Activities and phases

The activity is divided into several phases: guided discussion to identify the site; examination of the feasibility of the proposals with collection of information for evaluation; drafting of the organisational plan; publicising the event.

Firstly, the students take part in a guided discussion to identify the place to be visited by the citizens. Each student, going back over what was discussed during the training course, presents a reasoned proposal.

The most successful proposals are reviewed in relation to organisational feasibility. To this end, students must first identify the basic requirements for planning a guided tour to a particular site by brainstorming. By way of example they can reflect on:

accessibility of the site

size of the spaces

costs of the initiative

maximum number of participants site safety

Secondly, the students are divided into groups and collect information on each of the above aspects through the network or through direct contacts and, after discussing the results of the research, identify the site for the visit.

Under the guidance of the teacher, the pupils then consider various aspects of organising the visit, such as:

- timing (date and duration), how to book the visit, determination of possible costs
- identification of the students involved in welcoming them and giving them practical instructions for the visit (e.g. the possibility of taking photographs or filming)
- identification of the students involved as guides
- the route to be presented to the townspeople, with identification of the stages, the contents and any support.

At the end of the discussion, the students are guided to draw up a detailed organisational plan with an indication of the tasks entrusted to them.

At the end of the discussion, the students are guided to draw up a detailed organisational plan indicating the tasks assigned to the individual students during the activity.

Afterwards, the methods for publicising the event are defined (poster, newspaper article, poster on the school website...). The students not directly involved in the event, divided into groups, carry out their assignments.

# Time

- Guided discussion to identify the location: 30 minutes
- Examination of the feasibility of the proposals: 30 minutes
- Gathering of information for evaluation: 30'
- Comparison of site selection: 30'
- Drafting of the organisational plan: 1/1.30'
- Publicity for the event: 1h

#### Tools

- PC to write the article and prepare other publicity materials (for the preparation of the poster, a software could be useful).
- (a software like Canva could be useful for the preparation of the poster)
- PC and projector for presenting multimedia texts to the public, if any
- any panels or other media for the presentation of the site.

#### STUDENT CARD 3 - ORGANIZING A GUIDED TOUR

- 1. Participate in the discussion by saying which of the sites examined during the training course you would like the public to visit and why.
- 2. Take part in the brainstorming session on organisational feasibility, indicating what you consider to be the fundamental requirements for planning a guided tour of a given site.
- 3. Review with your peers the proposals that have received the most support, taking into account the feasibility requirements identified. To accomplish this goal, look for information about the chosen site (on the Internet or by telephone) and compare it with that found by your classmates in order to identify the most suitable site for the visit.
- 4. Under the guidance of your teacher, take part in drawing up the organisational plan for the visit, considering the following aspects:
- timing (date and duration)
- booking arrangements
- determination of possible costs
- identification of the students involved in welcoming the visitors and giving them practical instructions for the visit (e.g. the possibility of taking photographs or filming)
- identification of the students involved as guides
- the route to be presented to the public, with identification of the stages, the contents and any

#### support

5. If you are not involved in welcoming students or acting as a guide during the visit, publicise the event as indicated by the teacher (write an article, create a poster or flyer, etc.).

# What can you use?

- PC to write the article and prepare the other publicity materials (software such as Canva could be useful for preparing the poster)
- a PC and a projector, if necessary, for presenting multimedia texts to the public
- any panels or other supports for the presentation of the site.

# What is the activity for?

- collaborating by communicating your ideas effectively and respectfully
- collecting and evaluating information in relation to a purpose
- drawing up an organisational plan for a guided tour
- creating publicity materials
- writing an informative article
- managing the various stages of welcoming visitors (presentations, instructions on how to conduct the visit...)
- communicating your knowledge effectively, also using appropriate multimedia supports
- organising actions to enhance and promote a site

#### TEACHER CARD 4 - ENVIRONMENT ON SHOW

Once they have become "ambassadors", the students are called upon to make the richness of the biodiversity of the aquatic environment of their territory known to the citizens. In particular, in collaboration with their teachers and the students of the secondary school, they will organise a virtual exhibition, during which they will present the results of their observations of the flora and fauna of the aquatic environment carried out in the field and document any changes compared to the past, also due to human intervention.

The exhibition can of course also be real, depending on the choice of each teacher.

#### Key competences activated

- functional literacy
- multilingual competence
- competence in science (as part of mathematical competence and competence in science,
- technology and engineering competence)
- digital competence
- personal, social and learning-to-learn competence
- citizenship competence
- cultural awareness and expression competence.

#### Objectives

- to communicate one's own opinion effectively
- to respect the turn to speak and the opinions of others
- to make realistic and reasoned judgements
- to select materials and information in relation to a purpose
- to communicate content effectively in relation to identified audiences using different media languages
- to engage actively in nature conservation and protection by promoting responsible attitudes

# Activities and phases

Students brainstorm and reflect on the following aspects:

- ➤ type of audience
- ➤ objective of the exhibition title
- > content (materials to be presented, illustrations, languages of texts)
- content curators (divided into: curators of the choice of materials, curators of illustrations, curators of texts in the chosen languages)
- > graphic designers (with an external professional)
- timing (date of opening, permanent/temporary)
- criteria for the choice of virtual space (accessibility, ease of navigation)
- virtual space curators
- exhibition publicity tools and curators
- ≻ costs

At the end, a plan for the organisation of the exhibition and a table of working groups and their roles are drawn up.

Then the student curators of the virtual space, under the guidance of their lecturer, contact external professionals who explain to them the accessibility rules of the available virtual space and the possibilities it offers.

Simultaneously, the students responsible for the choice of materials organise themselves together with the secondary school students to gather all the materials derived from the field observation and identify, through a discussion led by the teachers, the most significant ones in relation to the objective of the exhibition (e.g. documenting the introduction of alien species) and define the sections into which they are to be divided. Once the materials have been identified and the sections defined, the students in charge, under the guidance of the teacher, proceed to prepare the illustrative material, such as

- texts in the chosen languages
- graphic representations of the habitat
- comparison photographs (paying attention to copyright issues).

Finally, the graphic design students, with the support of an external professional, choose the most suitable way of photographing and presenting each artefact (static photography, possibility of enlargement, rotation, 3D, slide show), then define the virtual rooms corresponding to the different sections and arrange the artefacts and illustrations in the virtual showcases.

The students in charge of publicity are responsible for communicating the opening of the virtual exhibition according to the methods chosen during the brainstorming session.

#### Time

- Brainstorming activities and drawing up the organisational plan: 2h
- Virtual space curators' activities: 2h
- Activities of the content curators: 4/5 hours
- Activities of the graphic designers: 4/5 hours Activities of the publicity curators: 2 hours

# Tools

- cameras or smartphones for photographs
- notebooks for notes and/or graphic representations;
- digital or paper comparison sheets
- local magazines and/or newspapers in paper or digital format
- PC
- Dedicated software

#### STUDENT CARD 4 - ENVIRONMENT ON SHOW

- 1. Participate in the brainstorming activity by presenting in a clear and respectful way your opinion on:
- type of audience
- objective of the exhibition title
- contents (materials to be presented, illustrations, languages of texts)
- content curators (divided into: curators of the choice of materials, curators of illustrations, curators of texts in the chosen languages)
- graphic designers (with an external professional) timing (opening date, permanent/temporary)
- criteria for the choice of virtual space (accessibility, ease of navigation)
- virtual space curators
- tools for publicising the exhibition and curators
- costs
- 2. Participate in the drafting of the exhibition organisation plan and the compilation of the table of working groups.
- 3. a. If you are a curator of the virtual space: together with your peers, "interview" each external professional, explaining the accessibility, possibilities and possible costs of the virtual space they provide.

Take notes and possibly get some illustrative material.

Together with the teacher and your classmates, re-read the notes and materials and participate in the choice of the virtual exhibition space.

b. If you are a curator of the choice of materials: together with your classmates, secondary school students and teachers, take part in the identification of the materials to be "exhibited". Make motivated proposals, taking into account the chosen objective of the exhibition.

c. If you are a curator of illustrations: together with your classmates, prepare a graphic representation of the habitat related to each of the selected materials and choose comparative photographs suitable for the message to be communicated (e.g. transformations). With the help of the teacher, select freely available photographs or obtain permission to publish them.

d. If you are a curator of texts: together with your classmates write short texts in your own language and in the foreign language(s) of your choice to present the exhibition

present each section present each material

e. If you are a curator of graphics: take photos of each material according to the instructions given by the expert; under his/her guidance and following the steps indicated, construct the sections and virtual showcases.

f. If you are a curator of the exhibition publicity: publicise the 'opening' of the exhibition in the way that was decided during the brainstorming session.

# What can you use?

- cameras or smartphones for photographs;
- notebooks for notes and/or graphic representations;
- digital or paper comparison sheets;
- local magazines and/or newspapers in paper or digital format;
- PCs;
- Dedicated softwares.

#### What do you need the activity for?

- communicating your opinion effectively
- respecting other people's turn of phrase and opinions
- making realistic and reasoned evaluations
- selecting materials and information in relation to a purpose
- communicating content effectively in relation to identified audiences using different media languages
- engaging actively in the protection and preservation of nature by promoting responsible behaviour

#### TEACHER CARD 5 - A FAIRY TALE ON THE RIVER

Young "ambassadors" can use their inventiveness to create a fairy tale that has an aquatic setting and is addressed to families with children.

After inventing the text, the students stage it over the course of a whole day divided into two parts: the first is a walk along the waterway and the second part is for the students to entertain their small audience with the play. Between the first and second part there is a snack break to be enjoyed near the water so that the students can also admire and listen to the sound of the water.

#### Key competences activated

- functional literacy
- personal social competence and learning to learn skills
- citizenship competence
- cultural awareness and expression competence

# Objectives

- to be able to create a fairy tale taking into account the target audience it addresses to
- to plan an itinerary along the water course
- to know how to play a part
- to manage the relationship with the audience

#### Activities and phases

Firstly, the pupils discuss together to find the main characters and choose the setting. Then they are divided into groups: one group invents the initial situation, the second group the development and the third group the conclusion. The parts are then put together to form a coherent text.

Secondly, the students, under the guidance of the teacher, prepare the staging of the fairy tale (dialogues, parts, disguises, scenery and props).

Once this has been established, the pupils rehearse according to their assigned roles, also by going to the chosen location.

During phase three, the pupils plan the route along the water course and an interactive game to entertain the children and make them relive the fairy tale they have just performed. The students are divided into five groups: the first group is responsible for identifying the stages, checking the timing; the second group is responsible for preparing brief explanations for each stage and the third group focuses on preparing and setting up the snack break. The fourth group sets the scene and acts it out. The fifth group deals with the running of the game.

As a fourth phase, the pupils have to deal with the promotion of the event through the use of multimedia channels and traditional promotional tools. One group of pupils is in charge of creating the flyer; a second group is in charge of promoting the event on social media, the school website and other channels; and a third group deals with relations with the municipality and cultural associations in the area.

In the last phase there is the implementation of the event in which each group has to deal with its assigned role.

#### Time

Collaborative writing of the fairy tale 2 h 30' Preparation of the staging 3 h Planning of the itinerary and the game 4 h Promotion of the event 2 h 30' Event 6 h

#### Tools

- PCs or other devices
- Graphics applications (e.g. Canva) and softwares
- Possible costumes and props
- Material for the game
- Snack material if required
## STUDENT CARD 5 - A FAIRY TALE ON THE RIVER

- 1. participate in the discussion to identify the setting and the characters of the fairy tale.
- 2. with the group, write the assigned part of the fairy tale and participate in the final elaboration.
- 3. take part in the preparation of the staging of the fairy tale by giving your suggestions on dialogues, parts, disguises, scenery and props.
- 4. If you are one of the actors, take part in the rehearsals.
- 5. a. If you are part of the route planning group, give your contribution to identifying the stages and checking the timing.

b. If you are part of the group preparing the explanations at the stages, prepare a short oral presentation after having documented and rehearsed the duration.

c. If you are part of the snack group, identify the most suitable place and set up a setting up

d. If you are an actor, take part in the performance according to the part assigned to you.

e. If you are part of the playgroup, plan the activity for the children and prepare the necessary materials.

- 6. Take care of the promotion according to your assigned role.
- 7. Participate in the realisation of the event according to the role assigned to you.

### What can you use?

- PCs or other devices
- Graphics applications (e.g. Canva) and softwares
- Any costumes and props
- Material for the game
- Possible snack material

### What is the activity for?

- knowing how to create a fairy tale taking into account the target audience it addresses to
- planning an itinerary along the water course
- knowing how to play a part
- learning how to handle relationships with the audience



An example of a fairytale setting

2. COMMUNICATING

# TEACHER CARD 1 - VIDEO CLIPS

At the end of the training course, the young "ambassadors" will be called upon to disseminate some of the good practices they have learned in connection with the care and protection of local waters. An effective tool, because it allows them to use the language they are most used to, is that of video clips. This medium also allows a wide dissemination of what has been achieved during the experiences.

## Key competences activated

functional literacy digital competence personal, social and learning-to-learn competence competence in cultural awareness and expression

## Objectives

to collaborate by communicating one's own ideas effectively and respectfully to plan the realisation of a multimedia product (video) in its different phases evaluate and, if necessary, revise the choices made on the basis of their feasibility use the most appropriate multimedia tools and languages to convey the chosen message assessing and identifying effective communication channels according to the message's target audience

## Activities and phases

The activity is divided into various phases: identification of good practices to be disseminated; design of the video clips; filming and editing; definition of the dissemination channels; publication of the spots made.

By brainstorming, students identify the good practices to be promoted related to the care and protection of local waters, such as:

not throwing waste into the water

not using pollutants in various production activities

protecting the aquatic ecosystem by reporting harmful behaviour towards plants and animals keeping the riverbed or water basin clean, and so on.

The students, divided into small groups, under the supervision of an expert, design a video on the good practice of their choice, according to the following phases:

definition of the situation to be represented;

drafting of the script: choice of scenes to be filmed, places, texts;

definition of the duration of the video.

Subsequently, the tasks are divided as follows:

filming direction

actors with their "script" set and costume designers editing staff

sound selectors

The filming is carried out at the chosen site and edited by the "experts" identified during the planning stage with the addition of sound.

During a guided discussion, in which all the students involved in the production of the video clips take part, it is decided how they will be disseminated.

The spots shot by the students are published through the chosen channels.

## Time

Identification of good practices to be disseminated: 30'. Designing the video clips: 2h Filming: 30'/1h Editing: 2.30'/3h Definition of dissemination channels: 30' Publication of the spots made: 30'

## Tools

- video cameras/smartphones for filming
- props and costumes for the actors
- PCs with dedicated softwares for video editing
- PCs for publication

## STUDENT CARD 1 - VIDEO CLIPS

- 1. Participate in the brainstorming activity by proposing your opinion on the good practices to promote related to the care and protection of the water of the territory, among those on which you have reflected during the training course.
- 2. After choosing with your group mates the good practice to disseminate, participate with them in

the design of a video, focusing on the following aspects

What do you want to represent?

what scenes do you want to shoot, in what places, with what captions; how long should the video last;

What should the members of the group do (e.g. directing, filming, actors with their 'script', crew, etc.)?

3. Participate in the making or editing of the video according to the task you have been given. Participate in the guided discussion, together with the teacher and all the classmates who have

taken part in the project, and express your opinion on the video dissemination tools that are most effective for you.

If it is part of your task, take care of the publication of the videos on the chosen channels.

# What can you use?

- video cameras/smartphones for filming
- props and costumes for the actors
- PCs with dedicated software for video editing
- PCs for publication

## What do you need the activity for?

- collaborating by communicating one's own ideas effectively and respectfully
- planning the realisation of a multimedia product (video) in its different phases
- assessing and, if necessary, revising the choices made on the basis of their feasibility
- using the most appropriate multimedia tools and languages to convey the chosen message
- assessing and identifying effective communication channels based on the recipients of the message

## C. PRODUCING

1. Proposal to the local government (to be included in a "river contract") for sustainable water management.

[here we could add an example of "proposal" our students will do to the local government]

2. Creation of an interactive and multilingual map for the local administration's website

TEACHER CARD 2 - MAKING AN INTERACTIVE MAP AND DEVELOPING DIGITAL COMPETENCES

Becoming an ambassador for a waterway means knowing it, understanding its significance and importance for the territory and promoting activities aimed at raising awareness among the population on these aspects. The new information technologies can be of great help in achieving these objectives, as they make it possible to reach an increasing number of people and make the challenge even more fascinating and motivating. At the same time, dealing with new technologies increases learning

motivation, supports students in their schooling and prepares them to be tomorrow's citizens. Indeed, the development of digital competence is increasingly in demand in today's world in many areas.

### Active key competences

- personal, social and learning-to-learn competence
- competence in cultural awareness and expression
- digital competence
- active citizenship competence

### Objectives

- knowing how to make video clips
- to use new technologies to make short video montages
- using web applications to create interactive products
- to communicate effectively concepts related to issues of social importance
- to understand the importance of environmental protection and enhancement
- to acquire digital skills

#### Activities and phases

The activity is divided into 3 phases: in the first phase the students make mini-clips in which they show the different awareness-raising activities to be carried out on the waterway that are proposed to the population.

In the second phase, students make short video montages in which they combine voice and images, using open source software or other software that the school provides them with.

In the third phase, students collect the videos produced, discuss in groups to plan the creation of the interactive map, choose together the type of product they want to make (interactive map with YouTube or with GMaps) and, following the instructions provided by the teacher, work together to create the final product.

The instructions for making interactive maps are available at the following links:

<u>https://forms.gle/LrrquzrdPK3FXJpcA</u> (link with instructions for making interactive maps/videos on the waterway using YouTube)

<u>https://forms.gle/8zcvKa6vKvv3z3Of7</u> (link with the instructions for the realisation of interactive maps/videos on the watercourse with Google Maps)

The map created can be publicised through the school's website and/or social media channels or through the websites and social channels of the various associations in the area. To do so, simply copy the sharing link and embed it in the website where you want to insert the map.

### Time

Making mini video clips 3 hours Production of video montages 2 h Making an interactive map 3 h

### Tools

- video cameras or smartphones to make mini video clips
- laptops/pcs or tablets with integrated microphone to make simple video montages and to make the interactive map
- external microphones if not already integrated in the pc/laptop
- Gmail account
- open source applications (e.g. Google Photos, MyMaps, Screencast-O-Matic) or other video editing softwares

## STUDENT CARD 2 - MAKING AN INTERACTIVE MAP AND DEVELOPING DIGITAL COMPETENCES

- 1. Make mini-clips in which you show the different awareness-raising activities to be carried out on the waterway that you and your class have decided to propose to the population.
- 2. Make short video montages, using Screencast-O-Matic or other software that the school provides, to include the external narrator in your mini video clips.
- 3. Collect the videos you have produced in a folder, discuss in groups to plan the creation of the interactive map and choose together the type of product you want to make. You can make an interactive map with YouTube or GMaps.
- 4. To make an interactive map of your waterway of which you have become an ambassador, follow the instructions at these links:

<u>https://forms.gle/LrrquzrdPK3FXJpcA</u> (link with instructions for creating interactive maps/videos of the waterway using YouTube)

<u>https://forms.gle/8zcvKa6vKvv3z3Qf7</u> (link with instructions for creating interactive maps/videos on the waterway using Google Maps)

5. Publicize the map on the school website and/or social channels or on the websites and social channels of the various associations in the area. To do this, simply copy the sharing link and embed it in the website where you want to put your map.

### What can you use?

- video camera or smartphone to make the mini video clips
- laptop/pc or tablet with integrated microphone to make simple video montages and to make the interactive map
- external microphone if not already integrated in the pc/laptop
- Gmail account
- open source applications that you can sign up for using your GMail account (e.g. Google Photos, MyMaps, Screencast-O-Matic) or other video editing software that the school provides.

- understanding the importance of environmental protection and enhancement
- knowing how to create effective media communication tools
- being able to communicate a concept of environmental awareness through a video
- acquiring skills to work effectively in a group
- respecting the turn of phrase and the opinions of others
- creating simple video montages
- acquiring digital skills
- acquiring active citizenship skills