Andreea Suciu (coord.)

CONNECTING SEAS

An Educational Guide



ABOUT THE PROJECT

The sea - it separates and connects, has been an inspiration for poets and a challenge for scientists, a salty desert and in the same time a habitat of astonishing living creatures, starting point for migrants and conquerors, place for recreation and struggle to survive. Students from different seasides in Europe (Black Sea, the Atlantic, the Mediterranean) have worked in a cross-curricular and cross-cultural manner on various aspects of the topic 'sea'; they combined natural sciences and humanities and they presented results of their research using both scientific and creative activities.

The age of the students involved was 14-18 years old. The partners of this project realised that today's teenagers must be approached in a different way than the previous generations learnt. Today's teenagers must be taught in a more inclusive and student-centred way that integrates different subjects, methods and ideas and gives them a holistic experience. We presented a learning environment where they could think outside the box and leave their comfort zones, where they could develop their communicative skills, be more creative, work together with their peers from all over Europe, understand and accept each nation's culture, roots, beliefs and traditions in the true democratic spirit of Europe. They found the common roots of our existence, both as humanity and as Europeans: teachers were able to point the common traits of our ancient culture and shared geography and show their students, that no matter how fragmented we are now, we come from the same background, thus they started their journey to become more tolerant citizens of the future Europe.

The project activities promoted:

- a cross curricular approach in scientific education in order to provide a challenging learning environment for the students to express their creativity
- an increase in students' motivation towards culture and creative arts
- an increase in students' respect for other cultures and fighting radicalism
- developing students' ICT skills, helping them to use their skills in a new, creative context
- the use of productive skills in English language

- school motivation by providing students with something challenging to study
- building stronger communities in schools, both at local and international level
- an increase in teachers motivation and encouragement their continuous professional development of teaching skills

There were 2 main areas of teaching, learning and training: SCIENTIFIC and CULTURAL HERITAGE. The duration of the project was split in 4 main periods, with a chosen topic from each area that was studied during the physical and virtual mobilities:

- 1 Diversity of the Sea Life,
- 2- Migration by sea,
- 3 Sea in danger,
- 4 Conquerors of the sea

In order to produce the FINAL PRODUCTS: the etwinning page, the digital brochures and the digital book, the project was carried out transnationally and cross-curricular. The international teams of students gathered information and worked together on a specific research topic. During the physical mobilities and during the online videoconferences students and teachers from all four partner schools presented their research projects in a conference organised by the host school both as a scientific symposium and as a scene for public debate and performing arts.

This team effort, where students from different countries worked together for one common goal, provided a powerful experience to all parties involved not only in the present but for their later lives and careers.

It also actively involved school communities, scientific and cultural entities in the learning/teaching activities for understanding the seas and oceans and its influence on our lives, while not forgetting our own impact on this natural resource. All partners collaborated closely with the local universities and research centres in their cities and they secured partnerships with them for the learning activities throughout the duration of the project.

The MAIN OBJECTIVES of our project were:

- to stimulate students interest in natural sciences and STEAM

- to raise awareness of present environmental issues in connection with the sea
- to stimulate interest in testimonies of cultural heritage and to encourage contacts to peers from other European countries
- to promote curiosity for and broaden the knowledge of other European cultures
- to encourage the use of ICT instruments
- to promote authentic teaching and learning of a foreign language, i.e English, using CLIL method
- increase teachers' skills and competences, as well as develop their professional knowledge
- schools internationalization

Main methods that helped us meet our objectives included PBL, peer learning and teaching, blended learning, problem solving, learning by doing, workshops, public speech and debates. We believe these developed 21st century skills in our students but also in the teaching staff.

The project's main achievements exceeded our initial intentions; the project duration was prolonged with one year due to the pandemics which offered us the opportunity to deepen the research on the four main themes. The FINAL OUPUTS are:

- 1. The project's website and twinspace hosted on the etwinning platform, comprising of pages dedicated to: descriptions of the partner schools, voting the project logo, descriptions of the Staff Training and Learning/Teaching Activities, Online virtual meeting during the pandemics, pages with the lessons and presentations jointly produced by the teachers and students involved, Assessment and evaluation of the LTA etc. (originally, the URL was https://twinspace.etwinning.net/94628/pages/page/730530 but due to the migration on the new platform we don't have
- access to the new page)
- 2. The `Connecting Seas` Book (Year 1,2&3) a trans-curricular educational guide of more than 150 pages with lesson plans on the four main topics of the partnership Diversity of the Sea Life, Migration by sea, Sea in danger, Conquerors of the sea a joint output of teachers in the 4 partner schools, with ISBN.

3. Four Brochures produced jointly by the students in the four partner schools, containing their presentations on the four main topics studied (Diversity of the Sea Life, Migration by Sea, Sea in Danger, Conquerors of the Sea).

All final outputs are free to use and download from the ERP platform and from our schools websites.

All four partners feel that the project activities managed to address the following needs:

- the need for a cross curricular approach in scientific education in order to provide a challenging learning environment for the students to express their creativity;
- the need to include more digital tools in teaching/learning;
- the need to do something different from the day-to-day and fragmented work at school.

Thus, the project's activities succeeded to:

- increase students' motivation towards culture and creative arts;
- increase students' respect for other cultures and fight radicalism;
- develop students' ICT skills, help them to use their skills in a new, creative context;
- encourage the use of productive skills in English language;
- tackle poor school motivation by providing students with something challenging to study;
- build stronger communities in schools, both at local and international level;
- increase teachers motivation and encourage their continuous professional development of teaching skills.

In terms of results, this project has provided the unique chance for the partner schools to continue to build on the long term collaboration (Italian and Portuguese schools have been our partners in 2 previous Erasmus KA2 projects) but also to train a new school – Liceul Teoretic Avram Iancu – in what Erasmus programme is and does. Our collaboration was one characterized by mutual

trust, effective cooperation and commitment to the project objectives and goals. Our students and teachers, produced transcurricular lessons and teaching materials using innovative methods (CLIL,

peer-learning, PBL); learnt how to work in teams and communicate efficiently; improved their socio-emotional adaptability and flexibility; researched and highlighted their cultural and educational achievements; established meaningful relations with the local universities and research labs; contributed to the high quality of the project activities; developed a stronger sense of European belonging and pursued to be better European citizens.

By producing final outputs like the etwinning website, the online book and the brochures we made sure we offered open access to valuable educational resources for students and teachers all over Europe (and beyond).

All participants were exposed to inclusion, cultural diversity and tolerance. We all came into direct contact with two other Latin peoples, thus having the opportunity to learn from and about each other, cherish our common background and overcome any cultural and language barrier.

Students and teachers alike worked in mixed transnational teams, used digital tools constantly, acquired research skills, good communication skills in English and time management skills needed to reach success, got a better understanding of lifelong learning, learned through their own experience, supported each other in the hard times of the pandemics, found solutions to continue working online and offline and also built their resilience. Thus, everyone got familiar with peer learning and teaching, self-assessment, learnt how to provide efficient feedback and developed tolerance and empathy towards the others.

Also, by working on such challenging themes, they developed their critical thinking and problem-solving skills and improved their ability to provide critical feedback.

Impact of the 3 Short-term exchanges of groups of pupils & 1 Short-Term Joint Staff Training

The whole teachers' and students exchange was based on the joint project work of the groups of teachers and students in each school in creating the teaching materials and preparing the demonstrative lessons taught in front of their peers during the staff training event or the research projects created by the students and presented in front of their peers. The mobilities offered the opportunity to the

participating teachers and students to learn how to plan and manage tasks in order to achieve the project's objectives. Also, how to promote their scientific and cultural achievements, work in transnational teams, produce high quality lessons that guided both teachers and students in a motivational way. By participating to these mobilities, everyone also grew their sense of European identity and citizenship. Teachers improved their scientific methodology in teaching and evaluating but also in creating cross-curricular and innovative materials. They also benefitted from the share of good practices with their colleagues from other European countries. All the materials revised during the short-term joint staff training event were uploaded on the eTwinning website and were used during the virtual mobilities periods. Teaching together and assisting other colleagues' lessons helped teachers not only to acquire and improve skills on which the project is focused, but also helped them grow in terms of teamwork, intercultural learning, social relations, planning and undertaking project activities and using English and ICT.

ABOUT THE PARTNER SCHOOLS

1. Colegiul Tehnic Ana Aslan, Cluj-Napoca, Romania

http://colegiulaslancluj.ro

Colegiul Tehnic ANA ASLAN is a Technical Secondary School located in Cluj-Napoca, the largest city in Transylvania and the economical and cultural capital of the North-West region. We have grades 9-12 with highschool classes of Environmental protection, Chemistry and Hairstyling. We have a total of 440 students and 45 teachers. Our students age is 15 to 19 years old; more than 30% of them come from rural areas surrounding Cluj, being daily commuters.

Starting with 2005 we have taken part in several European projects, like Socrates, Phare, Comenius, Leonardo da Vinci and Erasmus+.

In the last years we have had more than ten Environmental projects that won National and International Awards.

For the past 10 years our school experienced many positive changes:

- in September 2010 we were awarded the title of "College"

- in April 2011, May 2014, June 2017 and may 2022 we were awarded four times in a row the title of "European School" by the Ministry of Education
- we were among the first schools in Romania to receive the Label of eTwinning School in 2018-2019
- we are an accredited Erasmus School since March 2021
- we have been the European Coordinator for 3 Erasmus+ KA2 school Partnership (Math Around Us, 2015-2017, FOCUS 2017-2019 and Connecting Seas 2019-2021) and we were partners in five other projects: an Erasmus+ KA2, two Comenius Multilateral Partnership and two Leonardo da Vinci a great opportunity for our teachers and students to get into contact and interact with different European cultures and educational systems.

Each of our previous partnerships brought us prizes at local, national and European contests:

- European Language Label 2019 for the Erasmus+ Project ``Our Common European Tale``
- 1st Prize at the eTwinning National Prizes in 2017 for the Erasmus+ Project `Math Around Us``
- the 1ST PRIZE at the National Contest MADE FOR EUROPE 2012, 2015 and 2022 editions.

Our SWOT institutional analysis in 2018 reflected that our students need guidance in increasing their motivation for school subjects. They suggested using more digital content during classes. They are also very interested in discovering new cultures, new languages and being more creative in their learning. They also want to participate in extra-curricular activities, like debate and drama clubs.

Our role in this project is that of European Coordinator, thus we will collaborate with the other partners, coordinate all scheduled activities, act as resource and fulfill all scheduled project activities.

2. Agrupamento de Escolas Anselmo de Andrade, Almada, Portugal

website: http://www.anselmodeandrade.pt/

Agrupamento de Escolas Anselmo de Andrade is located in the Peninsula of Setubal, in the crossing of the Tagus river, having the Atlantic Ocean facing Lisbon. Being itself an individualized pole and at the same time the pivotal point of contact with other spaces, our cluster integrates students from different study levels going from ranges as kindergarten to secondary education. The three schools that belong to our cluster share the same Educational Project (Host, Guide and Integrate to Build the Future) although they have specific plans in which the different activities with the different classes and students from various ages are integrated. Our population covers a wide range of different social ranks, with distinct academic expectations. We have a great diversity of students, some having Portuguese as a second language, others children from migrants, as well as students with special educational needs (who are supported by a Unit Support of Multidisability).

Our school has a diversity of courses, including professional and vocational ones, aiming to fit our offers to the needs of students and their families.

We value the development of specific projects such as the methodology of consolidating apprenticeships, in constant interaction with the evolving environment, mainly with projects dealing with different areas such as environmental, artistic, civics sports, experimental, education for health and school interchange (European schools), according to our Educational Project.

Having this in mind, we have established partnerships with academic and scientific institutions at a superior level (both

national and abroad), with institutions of local power, enterprises from our community, with parents' association, non

profitable social and cultural organizations, besides our training centre which supports our structured professional training.

Bearing in mind our school features, its dynamic and projection in the community, as the national and international projects

which have been developed ever since, our goal is to go on betting in our professional training (teachers and staff), students, in

a European perspective as a means to be up dated.

We want to embrace new challenges in a constantly changing Europe in an educational and training perspective.

Having such a background we aim to get more knowledge, more awareness and make our community more conscious of a

borderless Europe with common goals even though having different cultures, customs and traditions, bearing in mind the

importance of giving the means and counseling students to succeed in choosing their own path after leaving high school.

At the moment we are partners with BMSZC Petrik Lajos Bilingual Vocational School in a Erasmus+ project "Math Around

Us" and we are very pleased with the results of our collaboration. That is why we would like to have another project together,

"Our Common European Tale" in which our students could increase their motivation for learning Literature/Arts and Dram as

well as improve their ICT and English Skills.

Having such a background we aim to get more knowledge, more awareness and make our community more conscious of a

borderless Europe with common goals even though having different cultures, customs and traditions, bearing in mind the

importance of giving the means and counselling students to succeed in chosing their own path after leaving high school.

They can compare situations in various countries as each new information and experience from other foreign countries are for

them very useful.

3. Liceo Scientifico Statale "B. Rosetti", San Benedetto Del Tronto, Italy

website: https://www.liceorosetti.edu.it/

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The LICEO SCIENTIFICO STATALE "B. ROSETTI" is a Senior High School in San Benedetto del Tronto, a town on the Adriatic Coast important for its fishing and, above all, touristic activities. We have 1 to 5 grades with about 1000 students, aged between 14 and 19, and more than 70 teachers.

According to Italian Education Regulations (Art2,comma 2) "The Lyceum study courses offer students the cultural and methodological tools to get a deep understanding of reality so that, thanks to a rational creative, projecting and critic predisposition, they can face situations, phenomena and problems and acquire knowledge, skills and competences to go on studying at superior levels, approaching social and working experiences while respecting their own attitudes".

Our Lyceum was born in 1939 as a private institute and acknowledged as State School in 1952; 3 years ago was added a Sport Course specially addressed to students involved in sport competitive activities.

Since the beginning our school has been giving the young a good preparation to attend University, basing its strong point in offering a perfect balance between Humanities on one side and Science and Maths on the other.

Actually our students, besides specializing in Maths, Physics, Chemistry and Biology, are also required to achieve solid competences in 3 Literatures (Italian, English and Latin), in Philosophy, European History, Technical Drawing and History of Art, so receiving a complete education which offers them the chance of attending any university faculty. The majority of them, anyway, goes on specializing in Engineering, Medicine, Economy, Informatics and Law.

We have always cared about the learning of English offering mother tongue teachers in 3rd and 4th levels and the majority of our students reaches the B2 Level at the end of their 4th year, a few of them also obtain good results in the national competition KANGOUROU. English Literature being required, we have been included in "ReadOn" project by Oxford University Press and students have taken part to English THEATRE performances for the last 10 years.

CLIL methodology is required in all our sections being evaluated in the final examination for Physics.

We are deeply convinced of the necessity of ICT support in any stage of the teaching/learning activities, so we are developing CODING, ECDL and AUTOCAD courses.

Our students regularly take part in the Maths Olympic Games of SCUOLA NORMALE DI PISA, in the Maths Games of BOCCONI UNIVERSITY, always obtaining good results.

In the field of humanities, students are regularly involved in national competitions like Latin CERTAMINA, DEBATE 2017 by WeWorld (qualified at national level), TEEN REPORTER (qualified at national level), A DAY AS A RESEARCHER, scientific journalism by SCUOLA NORMALE DI PISA (qualified at national level).

Besides our students are running a school radio, RADIOJEANS, supported by the Italian Ministry of Education.

For what concerns our sport section, many of our students have obtained qualifications at national level and won first prizes, individually or as team, like the 1st prize in National Competition of ORIENTEERING

In the last years we are taking part in European Projects:

2015/2017: KA2 - ERASMUS+ "MATH AROUND US" as a partner together with Romania, coordinator, Hungary, Poland, Lithuania, Denmark, Greece, Portugal-

2015/2016: KA1 - PROGETTO ERASMUS+ "4S+"2016/2017: KA1 - Erasmus+ "REcircle". The Erasmus+ projects have proved to be the best opportunity for both teachers and students to keep on developing didactic competences, opening horizons to new teaching methods, sharing idea and cultural basis with European partners.

4. Liceul Teoretic "Avram Iancu" Cluj-Napoca, Romania

website: https://www.avramiancucluj.ro/

The "Avram Iancu" Theoretical Highschool was established by the Order of the Minister of Education on 5 February 1990. Our mission is to offer a complex and well-balanced education to our pupils in order to enable them to get to know themselves better and to value their potential and skills, to develop their personality, so that their educational path is a success. The values we promote are performance, professionalism, excellence, creativity, initiative, responsibility, team spirit, dynamism and

communication. From the beginning, the school operates with grades P-12, hosting over 1000 pupils every year. They come from school proximity but also from various other districts of the city and from the rural areas as well. Of great importance for the school is that a significant part of the students have remained in our school for all 12 years of study, which reveals the fact that pupils and parents appreciate the quality of the educational act. Currently the grades 9-12 (high school cycle) specializes in the scientific profile: 2 classes of mathematics-computer science and 2 classes of natural sciences. Since its beginning, our school's excellent results at the national exams and competitions have brought local and national recognition. We have a very high percentage of graduates admitted to universities. In the national ranking (based on the Baccalaureate results), in the last consecutive years, our high school has ranked among the top 10 high schools in the country and placed 2nd at county level. Over time, our pupils were Olympics at national and international subjects such as Mathematics, Chemistry, Philosophy, Biology, Romanian and English Language. In its 31 years of existence, our school has encouraged excellence in education but also the development of students' creative skills, in the school running clubs of extra-curricular activities (volleyball, cheerleading, robotics, journalism etc.) and various local and national projects.

CHAPTER 1

Colegiul Tehnic Ana Aslan Cluj-Napoca, Romania

LESSON PLAN

Class: 10th Grade

Subject: Diversity of sea life. Biodiversity and marine chemistry

Teaching objectives:

O1: understanding the relationship between the physical properties and chemical composition of water and marine biodiversity

O2: rising awareness about acidification, a current environmental problem of marine ecosystems

O3: determination of water pH

O4: determination of water electric conductivity

O5: determination of water salinity

O6: comparing the obtained results with the standard values

Teaching strategies:

- Methodology: catechetical and heuristic conversation, explanation, experiment-based learning, case-study, brainstorming
- *Material resources:* blackboard, smart board, 3 worksheets per group, video-projector, flip chart, laptop, 4 water samples from different sources (Atlantic Ocean, Adriatic Sea, Black Sea and fresh water), Berzelius beakers, pipettes, Erlenmeyer beakers, burettes, 4 pH -meters, pH paper, 4 conductometers, distilled water, silver nitrate (AgNO₃) solution, potassium chromate (K₂CrO₄) solution, lab coats, disposable gloves (optional).
- Activity form: frontal, in groups

Lesson development

Teacher's activity	Student's activity	Time	Objectives
LEAD-IN and PRESENTATION			
The teacher introduces the students with the new topic using a Power Point presentation and a short video (Why is the seawater salty? https://www.youtube.com/watch?v=SPF6cSan6tc). The teacher discusses with students about the chemical composition of seawater, factors that influence the salinity of seawater, bodies of water by salinity, about the relationship between pH and acidification (a current environmental problem of marine ecosystems)	 Students watch the short video, then they brainstorm and list at least 3 major factors that influence the salinity of seawater Students interact with the teacher. 	15'	<u>O1</u>
CONTROLLED and FREER PRACTICE (Experimental lab work)			
2. The teacher explains the relationship between the pH of water and sea life. Splits the students into 4 groups. Hands out Worksheet no. 1 – Determination of water pH	2. Students are divided in 4 groups and each group will analyze a specific water sample from the following sources: Atlantic Ocean, Adriatic Sea, Black Sea and fresh water	5'	<u>O2</u>
3. The teacher instructs the students on how to determine the pH of the water sample by the Colorimetric Method and Electrometric Method	3.The students carefully read their laboratory assignments on Worksheet no. 1. They proceed to determine the pH of the water sample by the Colorimetric Method and by the Electrometric Method. Students fill in the table from Worksheet no. 1 with the results	10'	<u>O3</u>

	and also on the flip-chart provided in front of the class.		
4. The teacher instructs the students on how to determine the electric conductivity of the water. Hands out Worksheet no. 2 – Determination of electric water conductivity	4. The students carefully read their laboratory assignments on Worksheet no. 2. They proceed to determine the electric conductivity of the water sample. Students fill in the table from Worksheet no. 2 with the results and also on the flip-chart provided in front of the class.	5'	<u>O4</u>
5. The teacher explains the relationship between salinity and marine biodiversity. Presents the notion of water salinity. Classifies the marine species in the seawater according to salinity. Hands out Worksheet no. 3 – Determination of water salinity	5. The students carefully read their laboratory assignments on Worksheet no. 3. They proceed to determine the salinity of the water sample. Students fill in the table from Worksheet no. 3 with the results and also on the flip-chart provided in front of the class.		
REVIEW AND FOLLOW-UP		15'	<u>O5</u>
6. The teacher makes a brief recap of the lesson, to compare the results and to draw conclusions.	6. Students compare the results and draw conclusions.		
7. Homework assignment: each group will identify 3 stenohaline and 3 euryhaline species that they find in their local marine ecosystems.	7. The students write down the homework assignment.	10'	<u>O6</u>

Annex 1 Flip-chart Table

Atlantic Ocean, Adriatic Sea, Black Sea, fresh water sample



Sample No.	Physical or Chemical Property	Determined values of the water sample	Standard values	Remarks
1.	pH Colorimetric Method			
	pH Electrometric Method			
2.	Conductivity (µS/cm)			
3.	Salinity (0/00)			

CHAPTER 2

Agrupamento de Escolas Anselmo de Andrade Almada, Portugal

CHAPTER 2

Lesson Plan 1

Topic: Diversity of the Portuguese Sea Life

Target audience: a class of secondary grade; teachers of the project

Lesson Objectives:

- Understand the settlement in the Portuguese territory as a result of some migration by sea of people from the Mediterranean;
- Get to know some of the migrations that occurred from the Mediterranean to Portugal before the nationality: the Roman occupation;
- Get to know the importance of trade in the settlement of migrant peoples and the strengthening of Mediterranean civilizations, including Portugal;
- Get to know the Portuguese Atlantic Migrations in the 18th century;
- Understand the causes, destinations and the implementation of the Portuguese communities on the American continent;
- Get to know the origin of the Portuguese language;
- Get to know how Portuguese emigration has contributed to the knowledge of the Portuguese language;
- Use and make the most of new technologies for the knowledge and deepening of scientific and cultural knowledge.

Lesson Structure

Time	Introduction of Topic	Teaching Approaches
45-50 minutes	"Portugal is Sea" A – Constitution of the national territory; description of the Portuguese maritime boundary (the continental shelf, the upwelling, Exclusive Economic Zone - EEZ, The Law on the Seas and The Action Plan for a Maritime Strategy in the Atlantic Area). B – Biodiversity in national waters: fishery and marine resources as well as resources from the ocean bottom. Study case: The sardine	PPT Videos Interaction teacher/ students

Time	Main Contents	Teaching Approaches
	Scientific area: A: - Constitution of the Portuguese territory; description of the Portuguese maritime boundary; United Nations Convention on The Law of the Sea (UNCLOS); - The Portuguese continental shelf; the Exclusive Economic Zone - EEZ; The Portuguese Task Group for the Extension of the Continental Shelf (EMEPC) and The Action Plan for a Maritime Strategy in the Atlantic Area) B: - Biodiversity in national waters: fishery and marine resources as well as resources from the ocean bottom (The Portuguese Task Group for the Extension of the Continental Shelf; - The upwelling; the Azores anticyclone; the "nortada" (north coastal winds in summer and the sea currents; - Portuguese living marine resources; the sardine. - The "Plan for a Maritime Strategy in the Atlantic Area".	SG1 – Content workpaper (SG) Students´ Work Guidelines
	Cultural heritage C: The Ocean in Portuguese Literature - "The Lusiads" the Portuguese National Epic by Luís de Camões; and the "Message" by Fernando Pessoa. SG2 D: The Ocean in Portuguese Folk culture and traditions - The sardines in the Portuguese culture. SG3	Practical activities, information research

Time	Practical activities	Teaching Approaches
50 minutes	6 7	Guidelines for the students' activities
	Ocean Governance: Who Owns the Ocean? The rights/competences and obligations of a coastal state over its maritime territory; identification of the maritime zones and their limits; Continental Shelf; the Upwelling.	Clarification of questions
	Conclusion: sharing and discussion of results with the group class Resources: computers, overhead projector, speakers.	

STUDENTS' GUIDELINE 1 (SG1)

Topic: Diversity of the Portuguese Sea Life

Students' Research Activity 1:

A - Ocean Governance: Who Owns the Ocean?

"Although the oceans are technically viewed as international zones, meaning no country has jurisdiction over it all, there are regulations in place to help keep the peace and to essentially divide responsibility for the world's oceans to various entities or countries around the world. The United Nations is the essential governing body over the world's oceans and overseas major political, economic and environmental events that could affect this vital region."

Source: https://www.geographyrealm.com/owns-oceans/

A.1 - Follow these links:

https://en.wikisource.org/wiki/United Nations Convention on the Law of the Sea https://www.emepc.pt/?lang=en

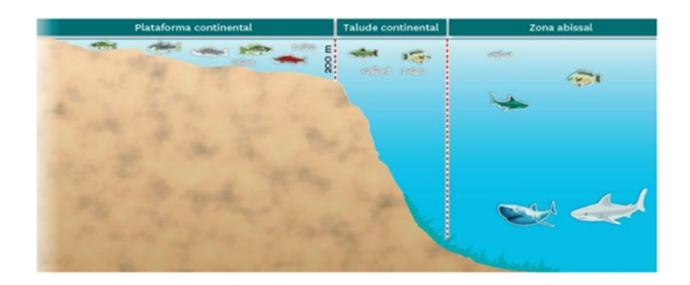
A.2 - Identify the document regulating the Law of the Seas at an international level.

A.3 - According to UNCLOS, what are the rights/competences and obligations of a coastal state over its maritime territory?

A.4 - According to the same document, identify the maritime zones, under national sovereignty or jurisdiction, referring to their limits in nautical miles.

B - Continental Shelf

The continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin or to the distance of 200 nautical miles from the baselines, from which the breadth of its territorial sea is measured where the outer edge of the continental margin does not extend up to that distance.



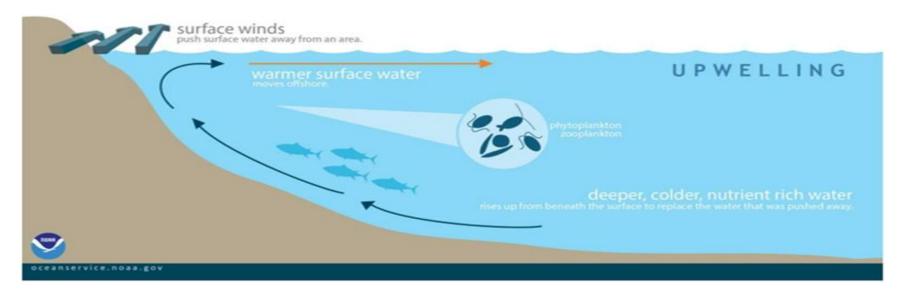
B.1 - Follow these links:

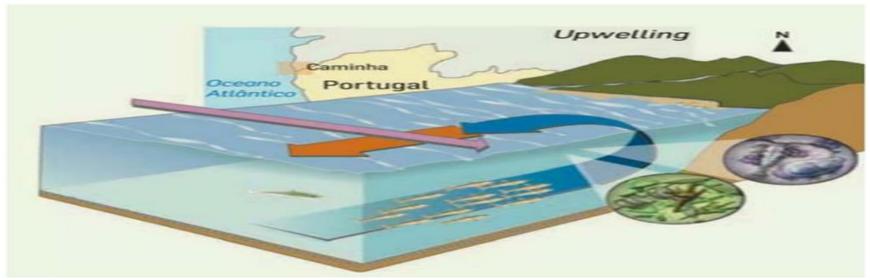
http://www.coastalwiki.org/wiki/Continental_shelf http://www.cienciaviva.pt/oceano/home/index.asp?accao=changelang&lang=en_

- B.2 Indicate some of the physical and chemical characteristics of the water column on the continental shelf that justify its high biodiversity and make it one of the most productive parts of the ocean.
- B.3 Give examples of some of the most abundant species in the Portuguese sea.
- C The Upwelling Upwelling regions are important sources of marine productivity, as it happens between the months of May and August in Portugal.
- C.1 Follow this link:

https://en.wikipedia.org/wiki/Upwelling

C.2 - Research on the phenomenon of upwelling and its importance for the greater abundance of fish, such as sardines, in the Portuguese sea.





STUDENTS'GUIDELINE 2

Topic: Diversity of the Portuguese Sea Life

Students' Research Activity 2:

A - The Ocean in Portuguese Literature

In different centuries two well-known Portuguese poets Luís de Camões and Fernando Pessoa, wrote about the Portuguese adventures at sea. The works of these two poets are learnt and analyzed by the Portuguese students along their educational path. Os Lusíadas -"The Lusiads" the Portuguese National Epic by Luís de Camões.

A.1 - Follow these links:

https://www.britannica.com/topic/The-Lusiads

http://burtoniana.org/books/1880-Os%20lusiadas/index.htm (translation)

A.2 - According to the information given on the links, summarize the main features of the Portuguese Epic by Luis de Camões which are related to the sea.

Portuguese Epic by Luis de Camões which are related to the sea.

B - "Message" by Fernando Pessoa

B.1 - Follow this link:

https://www.inverso.pt/Mensagem/english.htm

- B.2 According to the information given on the link, make a brief comment on the poem Portuguese Sea.
- C Present the similarities between two Romanian and the two Portuguese writers previously referred to.

STUDENTS'GUIDELINE 3

Topic: Case study – The Sardine: The influence of sardines in the Portuguese culture

Students Research Activity 3

Based on the case study presented, the students try to understand why sardines are an icon in the Portuguese culture. Which traditions are associated with them? Why? The influence that sardines have had in the production of designing objects.

Follow the links:

https://devourlisbonfoodtours.com/blog/sardines-lisbon/ https://www.portugal-realty.com/news-detail/sardines-and-portugal-acentury-old-loveaffair 16239

 $\underline{https://www.tasteoflisboa.com/eng/blog/like/article/162\#.Xajl40ZKg2z\ https://canthecan.net/how-the-sardine-became-a-portuguese-national-icon/$

Lesson Plan 2

Topic: Migration by Sea in the History of Portugal

Target audience: students and teachers of the project

<u>Lesson Objectives</u>:

- Understand the settlement in the Portuguese territory as a result of some migration by sea of people from the Mediterranean;
- Get to know some of the migrations that occurred from the Mediterranean to Portugal before the nationality: the Roman occupation;
- Get to know the importance of trade in the settlement of migrant peoples and the strengthening of Mediterranean civilizations, including Portugal;
- Get to know the Portuguese Atlantic Migrations in the 18th century;
- Understand the causes, destinations and the implementation of the Portuguese communities on the American continent;
- Get to know the origin of the Portuguese language;
- Get to know how Portuguese emigration has contributed to the knowledge of the Portuguese language;
- Use and make the most of new technologies for the knowledge and deepening of scientific and cultural knowledge.

<u>Lesson Structure</u>:

Time	Introduction of Topic	Teaching Approaches
	"The migrations by sea and the History of Portugal" A - The Portuguese area and the migration of peoples before the nationality; the Roman remains: merchandise and Mediterranean commercial routes.	PPT Videos
	B - The Atlantic Migrations in the 18th century: their causes, destinations and the implementation of the communities; the Atlantic relationships within communities.	Interaction teacher students
	Main Contents	

Scientific area:	
A:	
- The Portuguese area and the migration of peoples before the nationality; the Roman remains: merchandise and Mediterranean commercial routes.	
B:	
The Atlantic Migrations in the 18th century: their causes, destinations and the implementation of the communities; the Atlantic relationships within communities.	Students' Work Guidelines
Cultural heritage:	Practical activities,
C: The influence of the Roman occupation on the origin of the Portuguese language	information researc
- The common language (Romanic): SG2	
D: The migration by sea in the Portuguese Folk culture and traditions: SG3	

Time	Practical activities	Teaching Approaches
50 minutes	 - constitution of 3 working groups of 5 students each; - each group will work on one of the 3 work guidelines; - research and collection of information; 	
	SG1 – Content workpaper (scientific area) Maps with Roman routes; online research on traded products (viewing short videos);	Guidelines for the students' activities
	Research on the reasons for the European migration in the 18th century; Reasons for the Portuguese migration (watching a video) Conclusion: sharing and discussion of results with the group class In the final 20 minutes the 3 groups will energize the lesson through the sharing and discussion of results with the group class. Resources: computers, overhead projector, speakers.	Clarification of questions

Lesson Plan 3

Topic: Sea in Danger

Target audience: students and teachers of the project

Lesson Objectives:

- Understand the overexploitation of Portuguese marine resources;
- Get to know the Portuguese Ocean Strategy 2013-2020 (NOS 2013-2020);
- Get to know the Portuguese conservation measures of coastal and marine ecosystems;
- Understand the fishing effort for the purpose of ensuring the sustainability of fishing and the communities living from it;
- Get to know some of the protected marine species' guidelines for combating pollution of the maritime environment in Portugal;
- Get to know some of the protected marine species in Portugal;
- Get to know some of the Marine Protected Areas (MPAs) in Portugal mainland, Azores and Madeira;
- Get to know and understand the interconnection between ocean preservation and culture;
- Use and make the most of new technologies for the knowledge and deepening of scientific and cultural knowledge.

Time	Introduction of Topic	Teaching Approaches
	"Protect and preserve the Portuguese sea"	
45-50 minutes	A - The preservation of marine biodiversity; fishing quotas (allocations) by the Fisheries Policy of the EU; protected areas and species; sustainable policies and resources; management and ecotourism	PPT
	$B-Portuguese\ legislation\ concerning\ the\ pollution\ of\ the\ sea\ and\ the\ national\ organization\ to\ handle\ sea\ pollution\ occurrences.$	Videos
	Scientific area:	
	A - The preservation of marine biodiversity; fishing quotas (by the Fisheries Policy of the EU; protected areas and species; sustainable policies and resources; management and ecotourism	Interaction teacher students
	B – Portuguese legislation concerning the pollution of the sea and the national organization to handle sea pollution occurrences.	(SG)
	•	Students' Work
	Cultural heritage:	Guidelines
	C: Work students 'guideline activity (Literature; Culture) SG2	
	D: Work students 'guideline activity (Folk culture and traditions; Art and Handicraft) SG3 - constitution of 3 working groups of 5 students each ;	Practical activities, information research
	/	

- each group will work on one of the 3 work guidelines;	
- research and collection of information;	Guidelines for the students' activities
SG1 – Content workpaper (scientific area)	
Data base: Information about pollution in our Exclusive Economic Zone (EEZ); fishing quotas, protected areas and marine reserves. Watching a video.	Clarification of questions
Conclusion: sharing and discussion of results with the group class	
In the final 20 minutes the groups will energize the lesson through the sharing and discussion of results with the group class.	
Resources: computers, overhead projector, speakers.	

Lesson Plan 4

Topic: Conquerors of the Sea

Target audience: students and teachers of the project

Lesson Objectives:

- Get to know the history of the Portuguese Discoveries;
- Get to know the role of Portuguese navigators in the discovery of the oceans;
- Get to know the technological innovations used by the Portuguese that allowed the trans-oceanic navigation;
- Get to know the name of three major Portuguese navigators;
- Understand the role of maritime transport in the process of globalization;
- Get to know the importance of Portugal's geostrategic position for the development of intercontinental and European maritime transport and trade;
- Get to know how maritime navigation has brought Portugal closer to the peoples and cultures of different continents;
- Understand the multiculturalism of the Portuguese society through its connection to the sea.

Lesson Structure:

Time	<u>Introduction of Topic</u>	Teaching Approaches
45-50 minutes	"Portugal - The Conquerors of the Sea" A: The Discoveries Name three major Portuguese navigators: refer to their sea routes discovered. The maritime techniques they used (examples given by a video and some pictures). B: Maritime Transportation and Globalization Movement of merchandise and passengers in the national ports (quantity and value in the economy/projections); European Global Market + The Atlantic Trade – location and geostrategy.	PPT Videos Interaction teacher students

Time	Main Contents	Teaching Approaches
	Scientific area:	
	The Discoveries: Name three major Portuguese navigators: refer to their sea routes discovered. The maritime techniques they used (examples given by a video and some pictures). The big Portuguese commercial routes in the 15th and 16th centuries: the places they went through and the goods they traded. Recognition of the Portuguese pioneering in the first great globalization through maps and fact-finding texts.	
	B - Maritime Transportation and Globalization: The movement of merchandise and passengers in the national ports (quantity and value in the economy/projections); European Global Market + the Atlantic Trade – location and geostrategy.	
	Cultural heritage:	

	(SG)
C - Work students 'guideline activity (Literature) SG2	Students' Work Guidelines
The Portuguese language around the world (the CPLP - Community of the Portuguese Language Countries).	Practical activities, information research
D - Work students 'guideline activity	
(Folk culture and traditions; Art and Handicraft) SG	Guidelines for the students' activities
- constitution of 3 working groups of 5 students each;	Clarification of questions
- each group will work on one of the 3 work guidelines;	Clarification of questions
- research and collection of information;	
Conclusion: sharing and discussion of results with the group class	
In the final 20 minutes the groups will energize the lesson through the sharing and discussion of results with the group class.	
Resources: computers, overhead projector, speakers.	

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Workshop: Sea Art and Handicraft



CHAPTER 3

Licceo Scientifico B. Rosetti San Benedetto del Tronto, Italy

CHAPTER 3

Lesson no. 1 – Migrations: a preliminary work.

Time – 120 mins

Materials: whiteboard, markers, worksheets, a computer with internet access, powerpoint presentations, A2 sheets, pencils

Objectives

- To provide the students involved in the Eramus project *Connecting seas* with useful and necessary instruments to understand the complex phenomenon of migration;
- To stimulate students to reflect about the phenomenon of migration especially in its current developments;

Steps	Description	Type of activity	Time
Brainstorming about the term <i>migration</i>	 a) Students are invited to write, in a few seconds, upon some stickers, the first two words that come to mind when it comes to migration; b) Written down the ideas, the teacher collects all the stickers, puts them on a blackboard and analyzes them with the class searching for a shared definition for this social phenomenon; 	Individual activity Front-end discussions	10 mins
Analysis of the definition of the term migration	 a) The teacher displays the definition of the term <i>migration</i> according to the <i>Cambridge English Dictionary</i>; b) The students reflect on the first meaning of the word <i>migration</i>: the process of animals traveling to a different place, usually when the season changes; c) Starting from the definition of the term <i>migration</i>, according to the <i>Cambridge English dictionary</i>, the students understand that migration is a natural phenomenon that crosses throughout all the historical times, and involves vertically all types of human life, animal first and humans later; d) Students are invited to find similarities between human migration and the animals' one; e) Students are invited to reflect about the fact that in the English dictionary many terms are referred to the semantic field of travel - such as <i>journey</i>, <i>travel</i>, <i>trip</i> - but among them, the word <i>migration</i> is the only one to be reported to a definitive or semi definitive movement. 	Research-discovery Front-end discussion	20 mins.

Role play: the suitcase activity	 a) Students are invited to identify themselves as a migrant. Teacher asks: If you have to move by sea, in a definitive or semi definitive way, form your native land, which item would you take with you, which aspect of your culture or education you consider a good grounding point for the new life abroad? b) In the middle of the room there is a luggage: each students has to prepare his own bag just putting inside of it one item and one value for the departure. They have to write the name of the item and of the value they choose in two sheets of papers, a yellow one for the item and a blue one for the value; c) The teacher read the stickers put on the luggage and reflect about them with the students. 	Individual activity Front-end discussion	20 mins
Analysis of the definition of the term <i>migrant</i> .	 a) Students analyze the definition of the migrant according to the OHCHR Recommended Principles and Guidelines on Human Rights at International Borders, 2014; b) The teacher will stimulate some reflections in the students: in the definition above it is said that what distinguishes a migrant from a not migrant is the membership to a political apparatus such as city, nation. Why, according to the definition above, being part of a political assessment is so important to the point of differentiating the migrant man from the sedentary one? What does it mean for a man to have citizenship or a nationality? The migrant loses his citizenship when he leaves for a country abroad. But what does it mean for him to be outside a State of which he or she is citizen or national? c) Analysis of the definition of man according to Politics (1252b28-1253a) by Aristotle; d) The teacher explain in a short way the different kinds of migrants (forced or voluntary; refugees; separated child; asylum seekers; migrant worker; irregular migrant etc.); e) Analysis of push and pull factors. 	Research-discovery Individual activity Discussion	10 mins.

Reflections	Migration is a current topic of today's times, especially in a country likes Italy that is bathed by the sea on three of its four sides. Every day are recorded many arrivals of migrants throughout the Italian shores. In websites as the Ministero dell'interno	Individual activity	40 mins
Role play: imagine yourself as a migrant.	(http://www.interno.gov.it/it/sala-stampa/dati-e-statistiche/sbarchi-e-accoglienza-dei-migranti-tutti-i-dati) and the UNHCR's web profile (https://data2.unhcr.org/en/situations/mediterranean) are available every day in real time, data about these arrivals: it is possible to know the nationality of the migrants; the frequency of the migration from the same country; the arrivals point; and other information.	Front-end Discussion	
	The activity proposed below is divided into two parts: the first one concerns the research of data about all the elements of the migration explained above; the second one consists of writing a migration story.		
	First part: researching task. Starting from the materials available on the websites showed above, students are invited to choose one of the country from which the majority of migrants arrives every day to Italy. They have 40 minutes to do some researches on the web. They have to run through again all the steps that lead a man to leave his native country and to become a definitive or semidefinitive <i>migrant</i> . They have to choose one of the departure's countries and find information about: • Push factors. The students are demanded to find information about: the		
	history of the nation of departure (the most relevant events, especially those linked to the contemporary age and actuality); economic and political situation; social context; environmental setting of the city or the region of departure (how is the natural environment, what does it offers? It is a		

- mountainous or coastal environment? Is there a climate disaster or cases of ambient exploitation for some economic reasons? Etc.).
- **Pull factors.** The students have to make some researches about the political, social, cultural dimension of Italy in order to understand what do migrants hope to find in Italy, why they move, what Italy could offer them.
- **The journey.** The students will report on a geographical map the journey highlighting these elements: the duration of the journey; which countries are crossed; special sea laws; information about the arrival harbour. The travel must be made by sea
- Citizenship. We have said that the migrant losses his identity of *political* animal to born again as a new *political animal* in the new country. The participants to the role play have to make some researches on how to obtain citizenship in Italy. They have to understand which steps they have to take practically in order to obtain citizenship (*which is the office in charge of issuing citizenship? where is it? what are the opening and closing times? etc.*). In the case of a semi definitive migrant who doesn't want to remain in Italy all lifelong, which procedure must be followed to be a legal migrant (*residency permit*)?

All these information must be written down on a template.

Second part: writing task.

Starting from the data collected, the students are required to write a story about migration. They have to invent a main character who comes from the country studied in the first phase of the work, and produce a text who speaks about his/her personal experience of migrations beginning from the starting point of the process of migration (the moment when she/he has decided to leave), proceeding with the description of the travel by sea and ending with the arrival in Italy. The text must be written in English.

20 mins.

Lesson no. 2 – "Conquerors of the sea": The kingdom of Venice Republic on the Mediterranean sea.

Time – 60 mins

Materials: whiteboard, markers, worksheets, internet connected computer, powerpoint presentations, A4 sheets, pens, maps.

Objectives

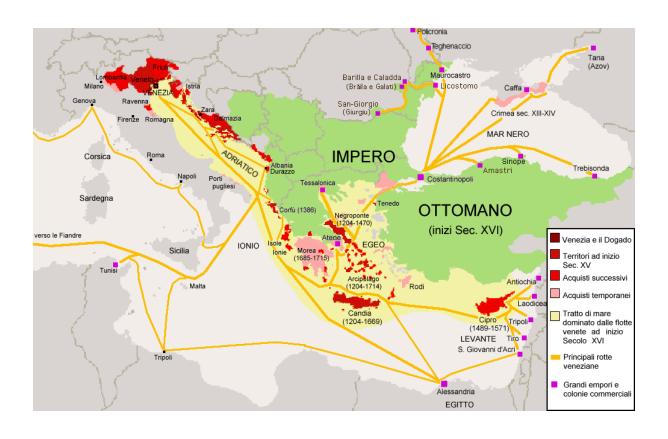
- Promotion of historical and cultural interconnections between different territories in the Mediterranean area
- Historic heritage awareness and geographic skills promotion
- Web research and font selection skills development
- Team spirit development
- Intercultural spirit and approach promotion
- English translation and conversation skills practice

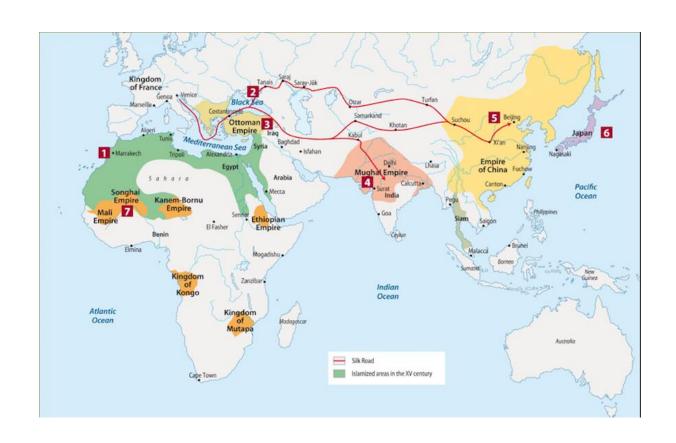
Steps	Description	Type of activity	Time
Warm up - Introduction - Meaning analysis	Starting from the presentation of a brief PPT (7 slides showing mainly geographical maps), the teacher will help the participation of students through brainstorming and discussion activities in reading and commenting on the datas contained in every slide/map (see annexes).	Lesson and discussion - brainstorming	5-10 min.

Realization of	A first group of students, searching on the web with the support of the teacher,	Research -	
meanings - Research	will try to draft the two itineraries of the "Silky Road" from Eastern Asia and	Discovery	
	try to identify on the map where the entry in Europe of the two itineraries is		30 min.
Activity no. 1	(on which seas?).	Team work	
(Laboratory)	Task 2 (optional): from which European Border and how the plague came	T . 1	
	to Europe in 1347-49? (see annex n. 1-2)	Front-end	
	to Europe III 1547-49? (see annex n. 1-2)	discussions	
	A second group of five students, searching on the web with the support of the teacher will try to find information about sculptor and architect Giorgio from	Research - Discovery	
	Sibenik and his activity on the Italian Adriatic coast (city of Ancona) and on the croatian adriatic coast (Sibenik).		
	the croatian adriatic coast (Stoenik).	Team work	30 min.
	Info, for example, will include: sintetic biography, the question of the double name (Italian/ Croatian), photos of his most famous masterpieces, his	Front-end	30 11111.
Activity no. 2	architectural style, the name and origin of the stone that Giorgio used and where (in which other cities and famous monuments) we could find the same stone. (see annex n. 3)	discussions	
(Laboratory)	stone. (see annex n. 3)	Research -	
, , , , , , , , , , , , , , , , , , , ,	A third group of students, searching on the web with the support of the teacher and books, will try to find info about the battle of Lepanto. Info will be focused	Discovery	30 min.
Activity no. 3	for example on: the two fronts of the battle, the kind of boats used by the two fronts, the place of the battle, the itinerary made by the Christians navy to reach	Team work	
(Laboratory)	the place of the battle. (see annex n. 4)	Front-end	
Reflection	Once completed the laboratory activities by the three groups, a leader for each group will show to other students and public the results of their research activities and discussion, moderated by the teacher, will follow.	discussions	10-15 min.

Annexes

Annex 1-2





Annex 3



Annex 4



Blue line - Christian navy itinerary

Red line - Turkish navy itinerary

Bibliography:

A. Marzo Magno - La splendida Venezia - Laterza, 2019
 B. E. Ivetic - Storia dell'Adriatico - Il Mulino, 2019

Lesson no. 3 – Interconnection Among The Seas: five species of fish make us

understand how the seas in Europe are interconnected

Time – 1h 30 min

Materials:

- a map of Europe with its seas for each working group
- a computer with internet connection and a PowerPoint program for each working group
- sheets of paper, colored pencils, eraser and ruler for each working group
- a video-projector that can be connected to the computer

Objectives

- To promote curiosity and interest in the biodiversity of the seas
- To promote awareness of the interconnection among the seas
- To learn to identify the seas around Europe
- To promote awareness of the connection between the biodiversity of the seas and our nutrition
- To promote problem-based learning
- To promote peer learning and teaching
- To promote the ability to speak English in front of an audience

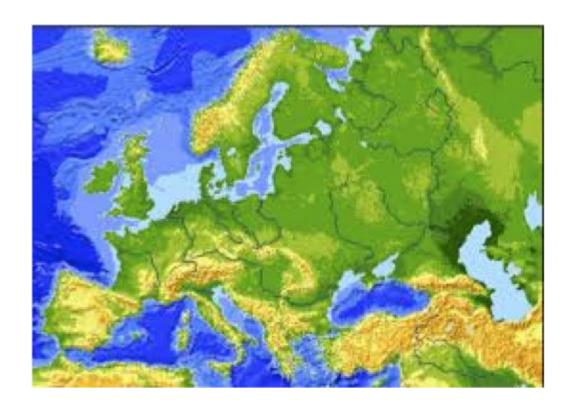
Steps	Description	Type of activity	Time
Illustration of the lesson	The teacher projects a PowerPoint to illustrate to the students the work that will be done during the lesson	Students listen to the illustration of the work and can ask for clarification	10 min.
Formation of working groups	Five working groups are formed, each of which will work on one of the following fish species: Atlantic Salmon (Salmo salar), Sturgeon (Acipenser sturio), Eel (Anguilla anguilla), Nordic Cod (Gadus morhua), Bluefin Tuna (Thunnus thynnus)	Each working group chooses one of the five fish species	5 min
Each group prepares a ppt document	Each group prepares a short ppt document about the chosen fish species considering the following aspects: distribution area, reproductive cycles and migration, fishing and breeding.	Students search the internet and prepare a ppt document	20 min

Each group works on the map of Europe with its seas	Each group reports on the map the migration paths that characterize the fish species analyzed and highlights the interconnection among the seas	Using colored pencils students draw on the map the migration paths	10 min
Each group illustrates the results on their research	Each group illustrates the results on their research by projecting the ppt document and showing the map	One student for each group illustrates the ppt document and showing the map	20 min
Identification of the connection between marine biodiversity and human nutrition	For each fish species the students write on a sheet about the situations of daily life in which they came into contact with it (food, stories)	Each student writes the observations on a sheet	10 min
Conclusion of the work	The observation made and the new awareness that emerged from the group work are shared	Students share their observations	15 min

Annexes

Annex no. 1

Map of Europe

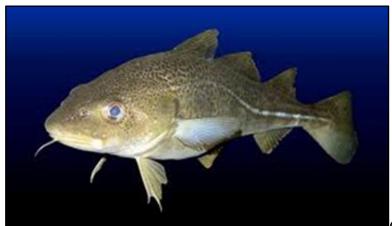


Annex no. 2

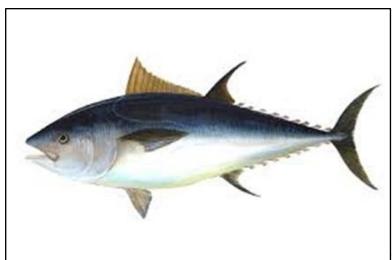
Fish species



Salmo salar



Gadus morhua



Thunnus thynnus



Anguilla anguilla



Acipenser sturio

Lesson no. 4 – Endangered Fish Species: five fish species help us understand the problem of uncontrolled exploitation of seas resources

Time – 1h 30min

Materials:

- an outline of the categories used in the IUCN Red List (International Union for the Conservation of Nature) for each working group
- a computer with internet connection and a PowerPoint program for each working group
- sheets of paper, colored pencils, eraser and ruler for each group
- a video-projector that can be connected to the computer

Objectives

- To promote knowledge of the impact of human activities on the marine ecosystem
- To promote awareness of the importance of protecting marine biodiversity
- To promote peer learning and teaching
- To promote the ability to speak English in front of an audience

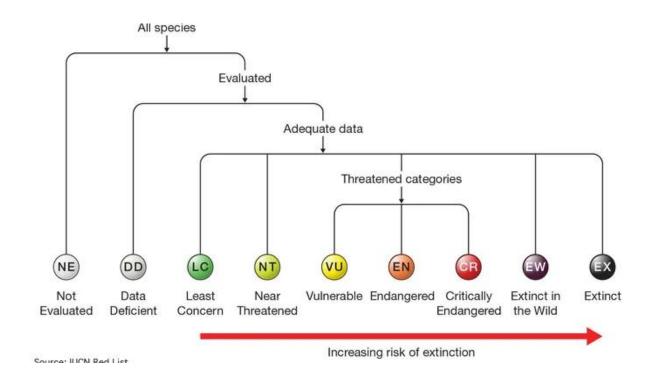
Steps	Description	Type of activity	Time
Illustration of the lesson	The teacher projects a PowerPoint to illustrate to the students the work that will be done during the lesson	Students listen to the illustration of the work and can ask for clarification	10 min.
Formation of working groups	Students are divided into five working groups. Each group will investigate the degree of conservation of a significant fish species according to the categories of the IUCN Red List. The fish species are the following: Atlantic Salmon (Salmo salar), Sturgeon (Acipenser sturio), Eel (Anguilla anguilla), Nordic Cod (Gadus morhua), Bluefin Tuna (Thunnus thynnus)	Each working group chooses one of the five fish species	5 min

Preparation of an explanatory scheme of the IUCN Red List categories	Each group must build an explanatory scheme of the IUCN Red List categories from the acronyms and the name by which they are indicated	Students search the Internet and prepare a file with an explanatory scheme of categories of the IUCN Red List	10 min
Each group prepares a ppt document	Each group prepares a short ppt document about the chosen fish species considering the folloing aspects: - the retention status according to the IUCN Red List (acronym, meaning of the acronym, description of the degree of retention) - the causes of the conservation problems of the species (otherwise identifying the reasons for the good state of conservation of the species) - man's responsibility for the management of fishing resources - the protection measures in place and the desiderable protection measures	Students search the internet and prepare a ppt document	30 min

Sharing of research results and compilation of three lists on the problems of protecting fish species	Each group shows the results on their research by projecting the ppt document. Each student fills in three lists referring to: - the causes of fish conservation problems - man's responsibility for the management of fishing resources - protective measures	One student for each group illustrates the ppt document. Each student fills in three lists using a sheets of paper	20 min
Conclusion of the work	The observation made and the new awareness that emerged from the group work are shared	Students share their observations	15 min

Annex:

IUCN Red List (International Union for the Conservation of Nature)



CHAPTER 4

Liceul Teoretic Avram Iancu Cluj-Napoca, Romania

CHAPTER 4

Lesson 1

The sea – The persona and the moods

Time – 60 mins

Materials: whiteboard, markers, worksheets, a computer with internet access, powerpoint presentations, A2 sheets, crayons, colour pencils.

Objectives

- Awareness of a sensorial experience's complexity
- The appreciation of marine beauty
- The accurate interpretation of symbolic images of the sea
- The development of team spirit
- The correct interpretation of the artistic and literary lingo
- English translation skills practice

Steps D	Description	Type of activity	Time
fi se st <u>ht</u>	A. The students will listen to a recording of marine sounds (the first fragment reproducing the soothing sound of the sea and the second - the sound of a sea storm). https://www.youtube.com/watch?v=AK88a_HLOho https://www.youtube.com/watch?v=vApZvZSAHf8 They will be required to write down what they imagine-colors, sensations, feelings. The subsequent discussions will emphasise the variety and the subjectivity specific to the perception of a marine-related experience.	Individual exercise Discussions	5 mins

Comprehension of message	The students will be presented with paintings depicting the sea and will discuss their meaning, the colours'emotional impact, the induced feelings and the atmosphere they create. Consequently, the students will come to the conclusion that the sea is a vital		5
Activity no 1	source of artistic inspiration, as it often triggers profound, even contradictory emotions		5 mins
	Conclusion: The image of the sea is altered by one's personal artistic view. See annex no 1. The images can be presented in	Discussions	
	powerpoint format.	Independent study	
	Nicolae Grigorescu, <i>Woman on the seashore</i> – tranquility,introspection, solitude.		
	 Carol Popp de Szathmary, <i>Marine</i> – desolation, gloom, sadness, failure. Mihail Simonidi, <i>Woman on the seashore</i> – calm, the 		
	 warmth of sunlight, withdrawal in the universe of reading. Arthur Verona, Violonist on a boat – peculiarity, sadness, loneliness, dark tones. Nicolae Vermont-Marine landscape of Constata port-vitality, dynamism, flurry, picturesque. 		10 mins
	• Ion Țuculescu, <i>Marina at Mangalia</i> – darkness, anguish, mystery, eerie, awareness, metaphysics.		
Activity no 2	The teacher will read a few verses from the masterpiece of the roman poet Ovidius(sea focused theme) and will discuss the feelings kindled by the exile. The students will be provided with		15 mins

Activity no 3	poems related to the sea, the lyric aspects of which they will analyse. The handouts will be completed thereafter. 1. Dimitrie Anghel, <i>The chant of the sea</i> 2. Nina Cassian, <i>I longed to stay in September</i> 3. Ştefan Augustin Doinaş, <i>The sea</i> 4. Nichita Stănescu, <i>Adolescents on the sea</i> 5. Ana Blandiana, <i>Do you remember the seashore?</i> The students will be grouped into five teams (one team per poem) and will present their interpretations. Their task will be to make a poster which will comprise their commentaries on the poem. The following aspects will have to be addressed: • The central image that expresses the message, theme and the main idea • Significant colors that create the atmosphere and induce the corresponding feelings	Individual work Guided reading Discovery Teamwork Projects	15 mins
Reflection	 Key-words, Key-phrases Personal observations on the poetic ideas Presentation of projects The students will translate the verses they are fond of (into English) The students will write their own poem about the sea, using the cinquain verse form The students will write a surrealist poem (each student will write a verse) 		10 mins

Annex 1



Nicolae Grigorescu-Woman on the seashore



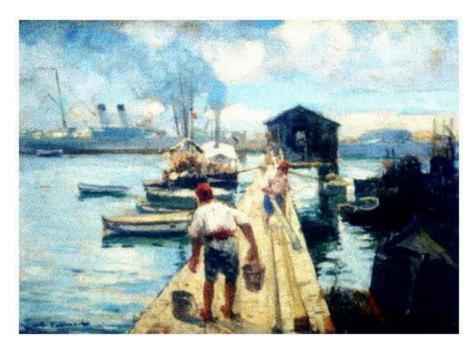
Carol Popp de Szathmary, "Marină"



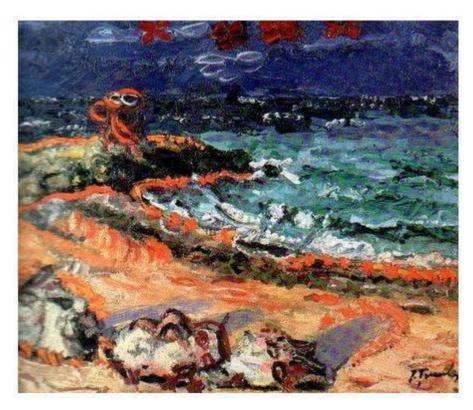
Mihail Simonidi, "Femeie pe malul mării"



Arthur Verona, Violonist în barcă



Nicolae Vermont, Peisaj marin cu portul Constanța



Ion Țuculescu, *Marină la Mangalia*

Annex 2

1. Dimitrie Anghel, The chant of the sea

În fiecare seară, de-un timp, stau cu mirare

Și-ascult ce straniu cântă tumultuoasa mare.

Atent îmi plec urechea, și-ascult notele-i grele,

Ascult, cătând pe-ncetul să mă deprind cu ele,

Să-mi lămuresc ce-o doare când spumegă de ură,

Ce vrea să spuie marea cu-nfricoșata-i gură.

Dar apele-i țin taina, schimbând a ei cântare,

Acum, parcă se joacă zvârlind mărgăritare,

Şi-acum, ca supt imperiul unei porunci secrete,

Își părăsește jocul, și-n larmă de trompete

Își trâmbiță mânia, iar miile-i de crește

Le umflă în talazuri, în larguri dând de veste,

Că cineva ascultă și-nseamnă cu mirare

Ce poate să surprindă din larga ei cântare.

2. Nina Cassian, I longed to stay in September

Voiam să rămân în septembrie pe plaja pustie și palidă, voiam să mă-ncarc de cenușa cocorilor mei nestatornici și vântul greoi să-mi adoarmă în plete cu apă năvoade; voiam să-mi aprind într-o noapte țigara mai albă ca luna, și-n jurul meu – nimeni, doar marea cu forța-i ascunsa și gravă; voiam să rămân în septembrie, prezentă la trecerea timpului, cu-o mână în arbori, cu alta-n nisipul cărunt – și să lunec odată cu vara în toamnă... Dar mie îmi sunt sorocite, pesemne, plecări mai dramatice. Mi-e dat să mă smulg din priveliști cu sufletul nepregătit, cum dat mi-e să plec din iubire când încă mai am de iubit...

3. The sea – Ştefan Augustin Doinaş

El cântă pe țărm. Perfida, el o prinde și-o sărută,

unda mării s-alintă. unda mării scade, mută,

Ea zicea: Mă simt silfidă, tremurând în jurul lor.

prinde-mă – și sunt a ta... Unde-s țărmurile?... Nu-s.

Marea chicotea: – Ha! Ha!...

Doar azurul jos și sus,

Şi-a sărit în apă fata. clatină pe valuri crețe

Unda mării, înspumată, tulburată frumusețe,

doar atâta aşteptă. ani de fum, eoni de foc.

Ca pe-o floare-n vânt o poartă

Oșie de vis a lumii,

valul viu și apa moartă. ei – în lingușirea spumii –

El o caută-n zadar: ard rotindu-se pe loc.

trupul ei mereu își pierde Toate-n jur se sparg, se curmă,

în argint albastru-verde se desfac, se prăbușesc.

auriul chihlimbar. Numai ei nu mai sfârşesc

Iată – atingând nadirul sărutarea cea din urmă.

sânii goi şi trandafirul. — Prinde-mă şi sunt a ta,

Dar cu mâna prin safire murmură apa lividă.

pescuitu-i o poveste Iat-o prinsă! Dar a cui e?

fără margini, ca și marea. Unde-i sprințena silfidă?

Consumată-n strălucire, Unde-i cel ce-o caută?

ziua nu le-a dat de veste Joacă apa amăruie

să-și consume-îmbrățișarea. neagră-vânătă-verzuie.

E târziu. Când – beat de dor –

4. Nichita Stanescu, Adolescents on the sea

Această mare e acoperită de adolescenți
care învață mersul pe valuri, în picioare,
mai sprijinindu-se cu brațul de curenți,
mai rezemându-se de-o rază țeapănă de soare.
Eu stau pe plaja-ntinsă, tăiată-n unghi perfect
și îi contemplu ca la o debarcare.
O flotă infinită de yole. Şi-aștept
un pas greșit să văd sau o alunecare
măcar pân' la genunchi în valul diafan
sunând sub lenta lor înaintare.
Dar ei sunt zvelți și calmi, și simultan
au și deprins să meargă pe valuri, în picioare.

5.Do you remember the seashore? - Ana Blandiana

Îți aduci aminte plaja Înspre mare

Acoperită cu cioburi amare Şi-mi strigai că ai nevoie

Pe care De depărtare

Nu puteam merge desculți? Ca să mă privești?

Felul în care Ninsoarea

Te uitai la mare Se stingea

Şi spuneai că m-asculți? Amestecată cu păsări

Îți amintești În apă,

Pescărușii isterici Cu o aproape bucuroasă disperare

Rotindu-se-n dangătul Priveam

Clopotelor unor nevăzute biserici Urmele tălpilor tale pe mare

Cu hramuri de peşti, Şi marea

Felul în care Se-nchidea ca o pleoapă

Te îndepărtai alergând Peste ochiul în care-așteptam

.

Exercise

Complete the following table using the information from the given texts:

Theme, poetic ideea	Symbols, motifs	Feelings,moods, tone of persona	Figures of speech, artistic images

Bibliography

https://www.youtube.com/watch?v=AK88a_HLOho

https://www.youtube.com/watch?v=vApZvZSAHf8

https://costintuchila.wordpress.com/2011/08/09/la-marea-neagra/

The source volumes of the poems

Lesson 2 - Tales by the seashore - The Casino Building in Constanta

Time - 60 min

Materials: whiteboard, markers, worksheets, computer connected to the internet, PPT presentation, A2 sheets of paper, candles, colors

Objective

- to understand the beauty and importance of historical buildings
- to understand the role of the buildings in social-cultural contexts
- to value and protect the historical monuments
- to perceive the artistic documentary value of photographs
- to learn the Art Nouveau style elements
- to create different types of texts, respecting specific structures
- to develop their imagination and empathy

Lesson plan

Steps	Description	The type of activity	Time
Evocation of meaning	The teacher notes on the board a couple of titles of articles that have appeared in the local press that refer to the Casino building in Constanța. Students make predictions about the history of this building. Headlines	Frontal discussion Predictive reading	5 min
	 the casino - the turmoil of history —€the casino - the expansion and decay the Curse of the Casino in Constanta 		
Realization of meaning Activity 1	The students study the history of the Casino, starting from the article on wikipedia, noting some of the defining moments. Observe the fate of a building subjected to historical events. See Appendix 1	Individual activity Front-end discussions	10 min
Activity 2	Students are presented with different pictures of the Casino, in its various stages of existence. Their viewing will be accompanied by discussions about the atmosphere, meanings, changes that happen at once with the rhythm of history. See Appendix 2. Photos may be presented as PPT.	Front-end discussions Discovery Problematic	10 min

Activity 3	Students are divided into three groups. Each will create a type of text that has centered the central topos the Casino. The text will also be accompanied by an image.		
	Group 1 - A SF story at the Casino. They will also create the cover of the book in which the story is published.		
	Group 2 - A police story. They will also create the cover of the book in which the story is published.	Teamwork	20 min
	Group 3 - A love story. They will also create the cover of the book in which the story is published.	Teamwork	20 11111
Activity 4	Presentation of projects		10 min
Reflection	Proposals will be made to build a plan to save the building: <i>Tomorrow's casino</i> .	brainstorming	5 min

The casino in Constanța is a historical building in Constanța. It is one of the most representative symbols of the city, being built in 1909 and inaugurated in August 1910.

The casino is located in the historical center of the city, on the cliff on the peninsula, in the vicinity of Regina Elisabeta Boulevard. It is one of the most emblematic buildings of Constanta. In the area where it stands today, there was, between 1880-1902, a wooden construction, a "casino" as it was then called - a place for theater shows, balls, a place for recreation for tourists. But in the winter of 1901, a storm destroyed part of the roof and a facade wall, highlighting the instability of the construction. The experts propose, and the communal council approves on January 29, 1902 the demolition of the construction. In April 1902, Mayor Alexandru Belcic decided, through a verbal process, to organize the site in his own regime for the demolition of the "casino" and the construction of a building with functions similar to the big European casinos, which began in 1904. Initially, the plans are drawn up by architect Petre Antonescu, who designs a building whose architectural style is inspired by the traditions of Romanian art. After the foundations are finished, however, the plans are changed, the City Hall entrusting their modification to an architect of French (or Swiss) origin, Daniel Renard, who renounces the specificity of the Romanian style, in favor of an Art Nouveau style under the cosmopolitan influence of the casinos of the time, in which the reason the main is a kind of demi-rose in the form of a shell. Built in 1908, the Constanţa edifice is completed in 1910, when it is inaugurated (the last alterations are made in 1912).

At the time of the inauguration, the local press criticized both the prolong duration of the works and the appearance of the final result, which the *Conservative* newspaper described as a "giant decorated with all sorts of nozzles, which from the point of view of the architectural aesthetics, is disappointing because of the asymmetries and the Babylonian mix of styles, "and" a monument erected in honor of inaptitude and bad taste".

The casino included a pay room, with interior walls lined with oil-painted boards and "served as fun for visitors during the bath season", and could also be used for "charity balls organized by the town hall", being made up of a dance hall, two reading rooms, for newspapers and magazines, two game rooms and the famous "seaside terrace". It was adorned with flags and being quite spacious it therefore became the meeting place for all. Near this first dance hall, it is envisaged that Henry Guarracino would build a pavilion in communication with the first, located below the level of the boulevard.

Designed monumentally, without a panoramic perspective and without a lighthouse, the building would have had a theater room with a stage, booths and lodges on both sides, but also a ballroom of the same size. Surrounded by a gallery open to the magnificent view, the construction would have had all the necessary units in the basement. The magnitude of the project is gradually diminished, so that the reception was made much later than Mayor Coiciu would have been willing to allow, and found the existence of a dance hall with aisle.

In its struggle with historicism, Art 1900 makes the transition to functionalism through the use of ornaments. In fact, it is tried to disguise an economic necessity in a unique experience based on the unique craft.

On December 21, 1909, the engineer Elie Radu and the architects Ion Mincu and D. Maimarolu are asked to move to Constanța, in a commission meant to study the casino from all points of view. The result of the inspection was materialized by an important document containing the well-documented and well-supported opinions of some very prestigious personalities. The observations concern the addition of spaces: a large room for the restaurant, with the kitchen and the necessary outbuildings, a restaurant that will be placed in connection with the terrace behind the glass door, which will not obstruct the wide open perspective on the sea. It was also suggested that the stairs of honor be cleared through a spectacular archway, the addition of entrances, changing rooms, toilets, but also the elimination of steps or windows.

The restoration and modernization of the Casino were carried out in 1934 by the designer Daniel Renard.

The casino was also restored in 1986 by a collective of plastic artists made up of Sorin Dumitru, Gheorge Firca, Ioan Miturca, Nae Mira, Nicolae Moldoveanu. Restoration of Baroque-fresco paintings, stucco and stained glass windows were executed. The works lasted one year. Immediately after the Revolution, the edifice is distributed to the Ministry of Culture (then led by Andrei Pleşu) who at the suggestion of Professor Mihai C. Băcescu (inspired by the Oceanographic Museum of Monaco) proposes a scientific attribution, to become the headquarters of a "Romanian Oceanographic Institute" according to the plans to Grigore Antipa (founder of the former Biooceanographic Institute in Constanța), a new institution of international level that would have grouped the Romanian Institute of Marine Research, the Marine Zoological Station created by Dr. Ioan Borcea and the Natural Science Museum Complex would cost the renovation, the separation between institutions and the restructuring of the government end both the plans of the Romanian oceanographers and the custody of the Ministry of Culture. After a few months, the casino returns to its previous function: restaurant and entertainment venue.

Several scenes from the film <u>Youth without Youth</u>, directed by <u>Francis Ford Coppola</u>, based on the ponymous novel written by Mircea Eliade, were shot in the casino in 2007.

Currently, the Casino in Constanța is in decay; to prevent accidents and theft, access inside is prohibited.

Lesson 3- Sulina – "Europe in miniature"

Time – 60 min

Materials: white borad, markers, work sheets, computers connected to internet, PWP pressentation, A2 sheets, colored pencils, colored sheets, sea map.

Objectives

- To perceive the multicultural dimension of the locality
- To develop empathy, openness towards multicultural dialogue
- To know important information about the nations that live in this locality.
- To perceive the locality as a symbol of history

Conducting the lesson

Steps	Description	Type of activity	Time
Evocation of	To listen to a fragment from <i>Europolis</i> , by Jean Bart, radiofonic thetre.	Main discution	5 min
meaning	https://www.youtube.com/watch?v=V6KuusGgjS4		
		The discovery	
	The teacher presents a quote from the novel: <i>This is a colony life</i> .		
	Levantine trade attracts adventurers from all tribes, who come here to		
	fish in the turbid waters of the Danube. A mosaic of races. All nations,		
	all types and all languages. The small world of this institution - Europe		
	in miniature - with decorations, backdrops and protocol, has a special		
	life.		
	It proposes for discussion the meaning of some terms: mosaic,		
	cosmopolitanism.		
Realization of			
meaning			
	The students watch a short film about Sulina and note some key		
Activity 1	information. Next up will coem discutions about what impressed them.	Discovery	5 min
	https://www.youtube.com/watch?v=k872Dr4QZ38	Front-end discussions	

Reflection	Împreună, vor găsi un blazon unitar care va fi desenat peste foile colorate. Fiecare propunere va fi justificată, iar alegerea blazonului va fi supusă la vot.	brainstorming	5 min
			20 min
Activity 4	Presentation of projects, justification of colors. The colored sheets will be glued on a map of Sulina's territory, forming a colorful mosaic	Front-end discussions.	
Activity 3	Group 2 – Greeks Group 3 – Armenians Group 4 – Lipovan Russians Group 5 – Bulgars Each team will build a poster and choose one of the colored sheets provided by the teacher, which he or she thinks is appropriate for the ethnic group he / she presented.		15 min
Activity 2	The teacher proposes for individual study a written material about Sulina, each of which must hold 10 information (Annex). The center of interest will be the cultural diversity of the city. Students are proposed to study the specificities of the main ethnic groups that marked the port. Students are divided into three groups. Each will study a text material and a video with an ethnicity important to the city. Group 1 – Turks	Discovery Front-end discussions Team work	10 min

Annex

Sulina

Sulina (in greek Σουλινάς-Soulinás) is a city from Tulcea, Dobrogea, România. Has a population of 3.663 people. Sulina is not directly linked to the road network in Romania and can only be reached by water, either on the Danube or the Black Sea.. Sulina is the city in Romania located at the lowest average altitude, only 4 m above sea level. The city stretches along the Danube, with most of the habitat on the right shore.

Unlike the rest of the Danube Delta, the city's surroundings are made up of sandy and salty soils, partly humid, lined with canals. In dry and salted areas, the vegetation is the one specific to dunes, such as the red dogwood (*Tamarix ramosissima*). In the marshy areas the reed (Phragmites genus), the parrot (Typha genus), the frog frog (Mentha aquatica), the water cuckoo (Cicuta virosa), the hornbill (Trapa natans) and, more rarely, the white water lily (Nymphaea alba). The extra-urban area is characterized by the absence of large trees, with a single patch of acacia (Robini pseudacacia) at the entrance to the city. Otherwise, in the city you will find willows (Salix babylonica), poplars, ash trees (Fraxinus excelsior) and wax cherry (Prunus cerasifera), the consecrated fruit trees being rarer.

In the legendary chapter there is the affirmation that Sulina had existed since the 6th - 7th centuries BC, as "a land of the Thracian Cimmerian vestments". As for the history of the truths, it is known that the ancient Greeks and Romans crossed the Danube Delta in their expeditions on the Danube and the sea, without any port being indicated or leaving any archaeological trace in the present area of Sulina, and without being certain that navigating then was possible on the later arm called Sulina, then more twisted by meanders and more insignificant in flow than today.

In the chapter of "proven and written history", the documents present Sulina starting with the Byzantine period, the first mention being due to Constantin Porphyrogenet who, in his work *De Administrar Imperii*, mentions him as *Solina*. Also the Byzantine chronicles mention that the Greek fleet passed here in defense expeditions with the Bulgarians, preceding the battle at Ongal (680). Then, Sulina can be found in several portolans and Italian maps from the 14th and 15th centuries, including the map drawn up by Pietro Visconti in 1327 and the Genoese navigation map from the 14th century, printed by the scholar Dimitrios Tagias..

Most information about Sulina begins to appear from the 18th century, when the Turks choose the water route to Constantinople, passing on the arm of Sulina, which at that time became the easiest waterway. In 1800, Sulina numbered 8722 souls being cosmopolitanly composed of Romanians, Turks, Greeks, Armenians, Jews, Russians and Italians alike and named by the writer Jean Bart (Eugeniu P. Botez), former captain of the port of Sulina, "Europolis".

Sulina gained the status of city in the 19th century, with the establishment of the European Danube Commission, which transformed the village from a fishing village into an important city for European river traffic. The Palace of the European Commission of the Danube and the Lighthouse of Sulina are two of the important monuments of the city, dating from the 1860s and 1870s.

During the Second World War, according to information provided by the Lighthouse Museum of the European Commission of the Danube, Sulina was destroyed in over 80% by Soviet bombings.

Here is a maritime cemetery, unique in the country and even in Europe. Sulina Cemetery is a "historic reserve", where senior officials of the European Danube Commission, Danish Magnusen - chief engineer of Sulina works, engineer Carl Kühl, a young couple in love - a princess and a prince have their place. ancient Greek, but also many people of the waters. There are also exotic names, with stories amplified in legend. Unique case, citizens of 21 nationalities, belonging to the Christian, Muslim and Jewish cults are buried in its perimeter. Some funeral monuments are true works of art, and the stories of some of those buried here are disturbing.

Another tourist objective is the Old Lighthouse in Sulina - today a museum - it was built between 1869 and 1870. With a height of 17.34 meters and a truncated shape, the lighthouse houses the work cabinet of Eugeniu Botez, known under the literary pseudonym Jean Bart. Also on the ground floor of the lighthouse is another room dedicated to the European Commission of the Danube, an international body set up by the Paris Treaty of March 30, 1856.

Sulina also has kilometers of beach at the Black Sea, but this does not attract a large number of tourists. Newly, this beach is used for nudism, in its isolated places. The beach is largely unpaved, which gives it a virgin look. The beach is the widest part of this type on the Black Sea coast and has a granulation similar to that of Mamaia. It is an alternative to the Vama Veche resort.

According to the 2011 census, the population of Sulina amounts to 3,663 inhabitants, down from the previous census of 2002, when there were 4,601 inhabitants. The majority of the inhabitants are Romanian (81.93%). The main minorities are those of Lipovian Russians (9.88%), Greeks (1.69%) and Ukrainians (1.23%). For 4.8% of the population, ethnicity is not known. From the confessional point of view, the majority of the inhabitants are Orthodox (91.48%), with a minority of old-time Orthodox (3.82%). For 4.07% of the population, the confessional membership is not known.

(Source: https://ro.wikipedia.org/wiki/Sulina)

Bibliography

Jean Bart, 1979/1933, Europolis, Minerva Publishing House, Bucharest

https://www.youtube.com/watch?v=V6KuusGgjS4

https://www.youtube.com/watch?v=k872Dr4QZ38

https://www.youtube.com/watch?v=nI4e36MVqEw

https://ro.wikipedia.org/wiki/Sulina

1.Turkey

https://www.historia.ro/sectiune/general/articol/obiceiuri-si-traditii-turcesti

https://www.youtube.com/watch?v=dWhPlSBl_H8

Bulgaria

https://ecomareaneagra.wordpress.com/civilizatii-pontice/bulgaria/

https://www.youtube.com/watch?v=ZCxGSZ-an0A

2. Greece

https://ro.wikipedia.org/wiki/Grecia#Cultura

3. Armenia

https://ro.wikipedia.org/wiki/Armenia#Cultur%C4%83

https://www.uniuneaarmenilor.ro/dansuri-armenesti/

Russia

4. Lipovian Russians

https://www.crlr.ro/rusi-lipoveni/

https://www.youtube.com/watch?v=Is2wDF4AHNc

5. Bulgaria

 $\underline{https://ecomareaneagra.wordpress.com/civilizatii-pontice/bulgaria/}$

https://www.youtube.com/watch?v=ZCxGSZ-an0A

Lesson 4 Message in a bottle" - create a drawing that portrays a message for saving the marine environment

Time - 60 min

Materials: computer with an internet connection, youtube video, blank paper sheets, drawing/coloring utensils, bottles, whiteboard, markers

Objectives

- To understand the importance of protecting the sealife specific to the Black Sea,
- To comprehend the implications of climate change and pollution,
- To learn about the species native to the Black Sea,
- To communicate through the means of art,
- To develop creativty and openess to multicultural dialogue,
- To convey a message for saving the marine environment through artistic means.

Stages	Description	Type of	Tim
		activity	e
Evocation	Present Greta Thunberg, climate change activist, in 3-4 sentences.	Open	10m
of the		discussio	in
meaning	View 4 minutes of the documentary Make the world Greta again	n	
	https://www.youtube.com/watch?v=oCVQdr9QFwYSe then listen to an excerpt of the song		
	Mesagge in a bottle, by The Police		
	https://www.youtube.com/watch?v=ObL3L6MRvN4	Discover	
		у	
	The teacher explains the importance of maintaining the maritime waters clean and exemplifies		
	species of plants and animals which could go extinct due to pollution and climate change as it		
	happened with the Mediterranean monk seal, https://en.wikipedia.org/wiki/Long-		
	snouted_seahorse; dolphins https://ecomareaneagra.wordpress.com/ecosistemul/ , molluscs		
	https://pontocaspian.eu/sites/default/files/A4%20Leaflet%20Our%20Black%20Sea%20shell		
	s%20Romanian_small.pdf		
	A discussion about the flora and fauna of the Black Sea		
	Mention that among 5000 species thought extinct, the blue crab, the chineese crab and the blue		
	walleye have resurfaced in the Black Sea		

Understan ding of the meaning Activity 1	The pupils discuss methods of protecting and saving marine life, They listen to the opinions of their peers and write the best ones down on the whiteboard. Bottles will be handed out for the messages.	Discover y	5 min
Activity 2	The teacher proposes the pupils write a message individually for saving the marine environment. Then write on a piece of paper, in a personal, artistic manner, and introduce it inside a bottle, like sailors would in case of shipwreck.	Open discussio n	10 min
Activity 3	Pupils are divided in 4 groups. Each group will decide for what they will vouch. Group 1 – Messages vouching for the seahorse Group 2 – Messages vouching for dolphins Group 3 – Messages vouching against the pollution of the sea with plastic Group 4 – Messages vouching against the pollution of any kind of any body of water		
Activity 4	Pupils recieve the lyrics of the song they listened to. Comment on the lyrics of the song: <i>Message in a bottle</i> by <i>The Police</i>	Teamwo rk	15 min
Reflection	Each team will prezent a representative message and then will show the bottles and the containing messages which will then be sent to other pupils from another school to be read.	Open discussio n Discussi ons	15 min 5 min

Sources: https://ecomareaneagra.wordpress.com/ecosistemul/

Lesson 5

Learning Unit: The Cultural Heritage of Antiquity

Lesson title: The Romans - Conquerors of the Mediterranean Sea

Type of lesson: mixed Time: 2x50 minutes

Place: stage 1-class of 9 B

stage 2- class of 10 D

General Competences:

1. Using time and place coordinates and representations in various contexts

2. The critical and reflexive use of specialised language and of historical sources

Specific Competences:

- 1.1. Localising the known world in space throughout various periods of history
- 2.2. Utilising critical thinking in the analysis of sources of information
- 2.3. Identifying elements of causality that are present in various sources

Operational Objectives:

O1 to acknowledge the influence of the Mediterranean Sea over the Roman civilization

O2 to understand the role of the Mediterranean as a point of connection linking civilizations

Didactic strategies:

- -methods and procedures: learning by discovering, heuristic conversation, demonstration with the aid of a map.
- -means: video projector, images, maps
- -sources:

Alexandru Barnea, Istorie: manual pentru clasa a IX-a, Editura Corint, București 2008

Georges Duby, Atlas Istoric, Larousse, 2007

Moments of the lesson	Content details		Teaching strat		t details Teaching strategies	
iessuii	Teacher's activity	Student's activity	Time	Means and methods	Evaluation	
Preparing the activity	Projects the teaching activity in accordance with the theme of the Erasmus+ "Connecting Seas" Project					
Announcing the theme and objectives Creating research projects that would include:	"Conquerors" of the Mediterranean Sea in Antiquity and in the Early Middle Ages 1. conquering Sicily; occupying the shores of Hispania, Northern Africa	Create their groups Assign the roles and individual tasks within the group	Week 1	Group activity with different tasks assigned	By means of the short- term project	
1. The process of "conquering" the Mediterranean	2. the Roman fleets control the Mediterranean Sea3. the harbour towns of Ostia, Marsala, Messina, Delos,	Group 1- conquering the western part of the Mediterranean. The Punic Wars		Learning by discovering		

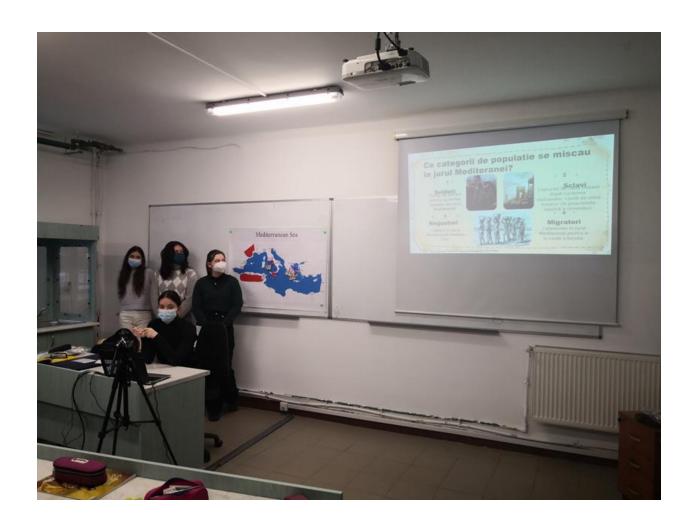
Strengthening organising knowledge (feedback)	Highlights the importance of the interaction between man and the sea, as well as the contribution of the Mediterranean to transmitting the values of Antiquity	Meditteranean (social and professional categories, migrants, etc) Q & A	10 min	Conversation	.ppt presentations
into an internal sea the Roman Empire - Mare Nostrum	of the research projects treat themes that had been decided on and are presented in electronic format (.ppt/prezi etc)	Group 3- the merchants master the sea (ports, commerce) Group 4- people around the			
Sea by the Romans 2. Emphasise the idea that the Roman transform to Mediterran	4. different social and professional categories move around the sea. The special case	Group 2- conquering the eastern part of the Mediterranean (Greece, Egypt, Asia Minor, Egypt)			

Images and photos taken during the activity:











Lesson 6

"The Sea in Danger" - Interdisciplinary activity - biology, geography

Time - 120 min

Materials: white board, markers, handouts, internet connected computers, didactic film, A2 sheets of paper, coloured pens.

Objectives:

- Practising reciprocal learning activities (teaching each other);
- Promoting active European citizenship and social inclusion;
- Using TIC instruments in education;
- Raising awareness about contemporary environmental problems that affect the sea and identifying favourable alternatives with a view to solving these issues;
- Promoting learning based on the CLIL method.

Stages of the lesson:

Stages	Description	Type of activity	Time
Evoking the sense of the activity	Debate about the migrations around the world, natural and anthropic (human);	Group-based activity	17 Min
	The teachers organise and guide the debate, having the students grouped in teams. The debate tackles: - types of migration; - the factors that influence and determine migration. At the end of the activity, the representative of each group presents and writes down the ideas/ conclusions of the debate. The videoclip entitled "Danger in the Back Sea" is played for them. (https://www.youtube.com/watch?v=VVf7TnkjeBE)	Frontal discussion	25 min

Achieving the sense	The teachers present the objectives of the lesson, starting from the recently viewed clip.	Discovery	8 min
Activity 1	Team work: identifying the main threats against the stability of aquatic ecosystems, as well as the human impact on the quality of the water, based on the analysis of the following clips: https://www.youtube.com/watch?v=Tn3kKtG6a_o		
	https://www.youtube.com/watch?v=n_4XU3OjpLE	Frontal discussion	10 min
	the students present their ideas/ results of the debate within the	Watching the clip	
	team, on flipchart sheets.	Individual activity	10 min
Activity 2		Problematization	
	The students will view the clip entitled "How to save fresh water flow".	Making the poster	
Activity 3	Stemming from this theme, they will individually conceive a poster or collage highlighting the subject matter of the studied activity.		
Activity 5	Presenting the poster/ collage.		25 min
Reflection	Evaluating the individual productions and selecting the most suggestive posters/ collages for dissemination.	Discussions/Conclusions	5 min













Lesson 7

Conquerors of the sea – multiple stances and hypotheses

Interdisciplinary workshop

Time - 90 min

Materials: whiteboard, markers, handouts, laptops connected to the internet, PPT presentation, A2 sheets, markers, colours.

Objectives for the students

- to have a sense of the complexity of the human being and to fathom its heroic stances;
- to appreciate the human values associated with experiences at sea: courage, team spirit, a sense of self-sacrifice, determination, the will to know more, etc;
- to develop IT competences;
- to develop team spirit;
- to understand artistic, plastic and literary language;
- to practise translation in English;

Stages	Description	Type of activity	Time
Establishing the sense	The students will watch a short film about heroes:	Individual practice	10 min
	A discussion about what heroes they are aware of ensues, as well as about explorers and conquerors they have heard of. The teacher will conduct a discussion towards the idea that, just like in the film, the heroes are not just the most important and remarkable characters in history and mythology, but that even ordinary individuals can become heroes. Conquering has more definitions and meanings, including the concept of interior territories.	Frontal discussion	

			1	
Achieving the sense and aims	The students are presented with a domain of research and with a plan of work for the present workshop, according to the PPT presentation. The teacher delivers the presentation, provides details and explanations and answers questions.	PPT presentation delivered by the teacher		
Activity 1	Teamwork for completing the projects. a. the students will be divided in teams, each being assigned specific work tasks and differentiated study materials. At first, they study the input individually, writing down their ideas.	Frontal discussions	10 min	
Activity 2	The teams are assigned as follows: 1. Heroism and the Black Sea			
	Work task: explain the way in which the Black Sea appears in Romanian imagery https://dilemaveche.ro/sectiune/efectul-de-ecou/articol/marea-neagra-mici-incursiuni-de-istorie-si-imaginar	Discovery Individual study	15 min	
	2. Hero typology Work task: present the configuration of the hero-conqueror archetype.			
	https://kupdf.net/download/jean-chevalier-dictionar-de-simboluri-vol1-a-dpdf_59fb4b90e2b6f5ab57cd755f_pdf			
	3. The hero as fictional character Work task: Characterise the main character from Radu Tudoran's novel "Setting Sail" – "Toate pânzele sus", underlining the human values that they represent.			105

Material: Annexe 1

4. The Hero – as human personality

Work task:

-present the social and historical context of the Black Sea, starting from the text provided in *Annexe 2*.

- explain the feelings experienced by the young marine officer before his first longer journey, starting your analysis from the input of the text in Annexe 3.

5. The hero as scientific personality

Work task: Demonstrate the importance of Emil Racoviță's highly significant activity in the domain of biospeleology. You will consider:

Annexe 4

https://emil-racovita.speosub.ro/biografie/

 $\underline{https://www.youtube.com/watch?v=FLTqJ698a6M\&ab_channel=TVR}$

- b) The students form teams and negotiate the creation of a common project. The project will be created in the form of a poster, Prezi, Canva or PPT presentation format other formats preferred by the students are also acceptable
- c) Project presentation

Reflection	The students translate in English some syntagms from "The Book of Weariness" by Fernando Pessoa, where the sea is associated with the inner self, discussing its significance	15 min
	(Annexe 5)	
	Or: Visualise the fragments from the film created on the basis of "The Old Man and the Sea" by Hemingway and they write a short essay entitled "Is the old man a conqueror of the seas?"	
	https://www.youtube.com/watch?v=1mjZoBUn75s	

A short historical retrospective on the context in which Romania obtained access to the Black Sea

Historical context

Annexe 2

- The Crimean War takes place in the mid 19th century (1853-1855). The most powerful countries in Europe ally with Turkey and defeat Russia together, so that the Paris Peace Congress is centred on the destiny of the Romanian States (also known as Principate), as well as on the status of the Danube River.
- In order to deter Russia from the mouths of the Danube River, the European powers decide that Russia must concede part of Southern Bessarabia to Moldavia, while the Danube would be open to international commerce.

Romania is sovereign over Dobrogea and the Danube Delta

- After the War of Independence (1877-1878), the most influential states accept that Dobrogea and the Danube Delta be given to Romania by Turkey, as stipulated in the Berlin Treaty. As a result, the young Romanian state has the right of access to the Black Sea.
- In this context, the harbour towns of Sulina, Contanţa and Mangalia become bridges that connect Romania to the rest of the world.
- Sulina in particular becomes a cosmopolitan town where various commercial agencies branch out, opening divisions. Ships and steamboats from all over the planet anchor in the Sulina port, establishing a connection between our country and all the others.

Annexe 3

Jean Bard's logbook

I. Sulina, August 1st

At last, the eagerly awaited order to set sail had arrived. We had known well in advance the itinerary of the journey. Oh, how many days we had spent, young officers that we were, with the maps spread out in front of us, following the contour of Minor Asia. We had been navigating in the same places for two months, circling Constanta and the mouths of the Danube River. We were all longing for

other places, unknown ones, waiting to be discovered. The sail manoeuvres, the evolutions and exercises at large, the shooting range, all the exercises involving our boats and the entire rigorous service aboard had begun to wear me down in my awaiting and longing for the first longer voyage. Finally, my dreams were becoming real... those dreams that had soothed my sorrowful childhood, the childhood of a poor young soul, buried within the walls of the military schools, where the time would pass so slowly between hours of instruction that my hand would freeze on the weapon, followed by the tedious hours of meditation and study when my head would drop on the open book as I fell asleep, exhausted. But now I had miraculously forgotten all the inconveniences of those daily incidents and miseries that had tormented my childhood. I had even forgotten my prison bed, where I would lie my aching body, my cape folded as a pillow on the hard planks underneath my head.

Oh, how many times my imagination would transport me on its magical wings in those moments of sweet bliss and relaxation, between life and sleep, carrying me to unseen, unknown places of such beauty. And all the times when I would ask the friend sleeping nearby "Where are you at right now?"

"Who, me? Oh, I am very far away indeed... on the waves of the Mediterranean, towards Italy, on the coasts of the Calabria!"

How well we used to know those places, from the geographical atlas, of course. We were born again in the clear, fresh and healthy air of the sea, in a new life where the past seemed to be so far away, all wrapped up in a blurry fog, as if another being distanced itself from my body, leaving the sad childhood behind. It was a happy fate that had thrust me on Mircea's boat. We were a few newcomers in the welcoming, friendly circle of experienced officers, all of us bonded by the shared school experience and by our origin, a small provincial town forgotten in Moldavia. We met at the beginning of our new career, meant to share the same fate in the struggle to build a name and a life for ourselves.

The day when we were supposed to leave the country had come: in the leaving order that the commander had written, it was clearly stipulated in the logbook: "everything will be ready for departure at eight o'clock, with provisions for all the crew which would last for ten days. At nine the Mircea brick would leave the Sulina Harbour, heading towards Kersonez". By the evening, all was prepared, we were just waiting for the time to leave. A reddish golden ray of light brightened up the horizon of the dusk, as a grey spot, looking like a torn cape, softly floated towards the west – it is a cloud blown away by the Northern winds. All of us officers make our way through the crowds towards the ship. We gather around a cafe table where the fiddlers were playing, the tongues would loosen up and the highly spirited words as well as the jokes started to flow as the pints of beer were refilled over and over again. And Mircea, good old Mircea, still handsome and strong despite his years is ready to fight the waves yet again. It is waiting for us anchored by the quay

where the crowds keep gathering and watching the sailors on decks. As they were in their break, they take time to bid farewell to the country they were leaving, so they started a "hora" dance that was so full of life, we could hear the decks creak beneath their bare soles -you know, the Romanian forgetting his worries and putting his mind at ease. Only a few of the recruits among them were sitting aside, sad and quiet, gazing in the distance wistfully, their eyes filled with sorrow. I can read the horror of the unknown in their eyes as they think of their loved ones. A pilot from the European Commission approached our table.

"Hey, Captain, I don't think you will be leaving tonight, look at the clouds gathering on the horizon."

We all looked that way, observing the humid and black veil in the distant skies. A cold, salty wind blows from the sea onwards, the waves deafeningly clashing against the quay. A few shadows distance themselves from the black mass of clouds and water, thrusting themselves towards the port, growing by the minute, as they approach. These are boats with billowing sails that seek shelter from the brewing storm. However, the order had been issued and we were supposed to set sail. We bid farewell to the friends who had gathered to see us off in front of the ship and we walked towards it in the cheers of the crowds on the quay.

"Crew on deck, take your positions", bellows the voice of the captain, followed by the whistles that announce the occupation of each post. Mircea, unbound from the ties and anchor that kept him linked to the shore, slowly moves away in the rattling, creaking noises of the anchor lifting from the seabed. Now here we are, anchor lifted, making the round tour of the quay, heading towards the vast sea, accompanied by the cheers and music, hats and scarves fluttering from the shore. Mircea advances through the waves, gathering speed, leaving behind the mouth of the Danube River, as if crossing the threshold of the vast, black sea. The land of our country remains well behind. Standing on the deck, I glance at the sea and at the land that remains as a black stain engulfed by the blackness of the night, with fragments of opera filling my ears in the fearsome howling of the wind. Only the red, tired eye of the lighthouse projects itself against the blackness, watching over the mad rush of the ship, as if it were a night bird dipping the tips of its wings in the endless darkness.

Annexe 4

Conquerors of the sea

- 29th June: The International Day of the Danube, established in 2004
- 31st October: The International Day of the Black Sea, established in 1996

Sources:

- https://www.researchgate.net/figure/Figura-5-Rutele-comerciale-din-Marea-Neagra-Sursa-Simileanu-Sageata-2009-p-167_fig3_282286093
- $\frac{https://www.descopera.ro/dnews/11787407-secretele-marii-negre-dezvaluite-in-cadrul-unui-nou-proiect-educational-interactiv$
- https://coltisorderomania.ro/2019/03/14/dunarea-la-cazane-un-spectacol-fascinant/
- Petre I.Bărbuneanu, 1967, Mările și oceanele pământului, Editura Militară București
- https://identitatea.ro/emil-racovita-primul-roman-de-la-capatul-pamantului/

Annex 5

Fernando Pessoa, 'Book of Weariness'

"During sleep I had the sensation of my release, as if the Southern Seas had offered me the opportunity to discover wonderful islands. And there I could live without doing anything, just indulging my artistic pleasures and fulfilling the intellectual side of my being."

"Little by little, I conquered my interior territory that was going to be mine in the end."

Lesson 8

EMIL RACOVIȚĂ – a Romanian Explorer

Interdisciplinary Didactic Scenario

Time – 60 min

Materials: board, markers, handouts, laptop, PPT presentation

Objectives:

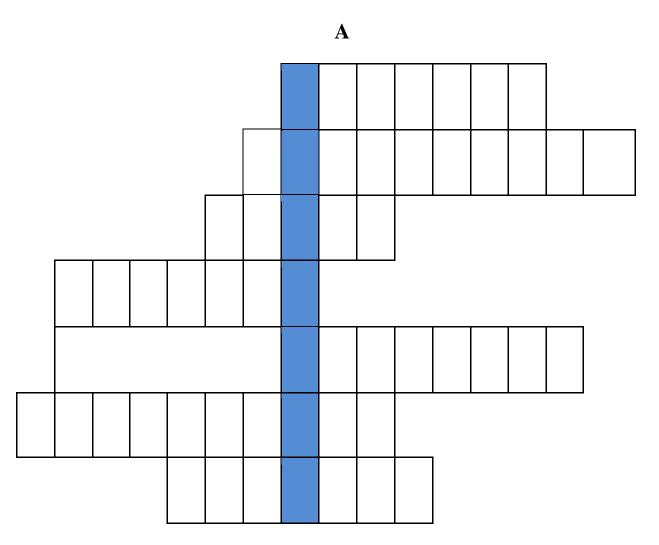
- to raise awareness with regards to Emil Racoviță's expedition
- to educate and inform the students with regards to the great discoveries of the Romanian explorer
- to read for gist and for detailed information processing
- to enhance productive skills (a written and audio message)
- to appreciate the human values associated with expeditions at sea

Lesson Development

Stages	Description of the activity	Type of activity	Time
Evoking the sense Activity 1	A volunteer student reads the text entitled "A Romanian Explorer" by Constantin Motaş, being seated in the "author's chair". Afterwards, he or she solves a crosswords puzzle with the help of their peers, at the end of which they would discover the name of the type of ship used by Emil Racoviță in the Antarctic – they will achieve this by observing the vertical line. (Annexe 1)	Lockstep, frontal discussions	6 min
		Individual discovery	

Achieving the sense	The teacher presents information about the scholar to the class (Anexa 2).	Exposition	6 min
Activity 2	The TVRCJ documentary dedicated to this subject is watched, https://www.youtube.com/watch?v=FLTqJ698a6M&t=745s	Discussion	16 min
Activity 3 Activity 4	The handout with the following points is analysed: I know/I want to know/ I learned (Annexe 3), by which the analysis and evaluation component is targeted, developing the capacity to provide arguments as well as counterarguments. Also, the active involvement of students in the learning and teaching process is aimed at developing the capacity to structure knowledge while also developing creativity and language.	Discovery Individual practice	10 min 5 min
Activity 5	Accessing the WORDWOLL platform, for the game https://wordwall.net/ro/resource/21605869/str%C4%83bunicul-meu-emil-racovi%C8%9B%C4%83-de-andreia-petcu	•	
Activity 6	Teacher presents the activity and trajectories of the expeditions created and guided by Emil Racoviță with the aid of the handouts in Annexe 4 and 5	Didactic game	12 min
Reflection	Creating an essay in 5 minutes, in English, in which the students would express their opinions with regards to Emil Racoviță's importance in the realm of the Romanian culture, thus putting to use the information obtained during class and from the text entitled "A Romanian Explorer", written by Constantin Motaș.		5 min

ANEXA 1 - Crosswords Puzzle - `A Romanian Explorer` by Constantin Motaș



Definitions:

1. During his childhood, Emil Racoviță was taught by
2. In high school, one of his teachers was Grigore
3. He completed his unviersity studies at
4. In 1897 he embarked on
5. Some of the animals he studied were the seals and
6. He spent 13 years
7. "Belgica" was a ship with three
The students will discover the name of the ship type that Emil Racoviță embarked on for his expedition to Antarctica, on the horizontal line.

Annex 2

Emil Racoviță

Emil Racoviță was born on 15th November 1868 at Iași; he died on 17th November 1947. He was a renown Romanian scientist, scholar, explorer, speleologist and biologist, also considered to be the founder of biospeleology (the study of subterranean fauna, life forms living in caves and water environments). He was appointed representative of the Romanian Academy in 1920 and eventually became the President of the Romanian Academy, a position which he held from 1926 to 1929.

He was born in Iași and spent his childhood at Şurănești, Vaslui county. He started his education in Iași as one of Ion Creangă's students. Eventually he was taught by Grigore Cobălcescu, further pursuing his advanced studies at the United Institutes High School.

As former student of geologist Grigore Cobălcescu, he then studied Law at the Faculty of Law in Paris, according to his father's wish, but at the same time he was attending the courses of the Anthropology School.

Having successfully obtained his degree in Law, he subscribed to the Faculty of Sciences within the Sorbonne University in Paris. Having graduated from this institution in 1891, he worked in the Arago laboratories of the marine biology Banyuls-sur-Mer resort, where he carries out a series of dives at 10 metres under water.



Emil Racoviță at the Romanian Academy



Emil Racoviță on the Belgica ship in the Antarctic

At the age of 25 he was elected member of the Zoological Society in France. He is recommended as participant in the Belgian Antarctic Expedition (1897-1899) conducted on the "Belgica" ship due to his experience as a naturalist.



Belgica anchored at Mount Wilson



The research carried out on the Belgica during the Antarctic expedition

In 1907, he would publish *Essai sur les problemes biospeologiques*, the first internationally important work dedicated to biospeleology in the world.

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