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Erasmus+-KA229 SCHOOL EXCHANGE PARTNERSHIP
ID N.º 2020-1-PT01-KA229-078877

There's sea and sea... there's an entire ocean to take care of!

Words from the coordinating school

And here we are, in the second year of development of our Erasmus+ project.

In the academic year 2020/21, our activities were all developed remotely, however, this academic year the physical mobilities started and we could meet and get to know each other physically in October, in Portugal! How good it was to be able to be all together and agree on strategies to continue to develop our purpose, the theme of the project, THERE IS SEA AND SEA, THERE IS AN OCEAN TO CARE OF!



On 19, 20 and 21 October, the preparatory meeting between partner schools took place at Moinhos da Arroja Complex School (Odivelas, Portugal), and here we facilitated workshops, job shadowing, lesson planning and resource building. We will not dwell here on these formation days, since each of our partners will report on this meeting in this newspaper.

Our partners brought us wonderful gifts, with the smell and taste of their countries of origin! And what did we give them? Sardines in cloth, of course, that you can use as key-rings!!



But we would also like to highlight the welcome to our partners in this meeting, prepared by the children of pre-school and primary school (Porto Pinheiro Primary School), who created an anthem, with a chorus in English, for our project! They not only sang it, but also choreographed it!

A giant installation was also inaugurated, built by all the primary school students, alluding to the motto of our project and seeking to remind everyone that: **THE SEA IS NOT A DUMPING GROUND!**



They were three intense days, but very good and fruitful! We certainly want to repeat it. See you in Italy!



Agrupamento de Escolas Moinhos da Arroja, Odivelas / Portugal

19 th October 2021

DAY 

We were excited because the experience was about to begin!

Lisbon, of course, is a very big city, so we had to reach the school. We took the bus and the taxi, and...great surprise! We met our colleagues from Bulgaria and Turkey at the metro station! That's a small world.

When we reached the school, we experienced a warm welcome by our colleagues from Portugal and their students, who sang for us.



Then we visited their school.

We were amazed by the display of the wonderful activities made by Portuguese students.



The first activity organized for the day was:” **A meeting on operationalization and implementation of the project.**”

Then we had a nice coffee break. This was the first opportunity to get to know our colleagues in person.

During lunch we had the opportunity to talk and enjoy local dishes, first of all the famous “bacalhau”, codfish, which is the typical dish.

We didn't expect this, but there are actually many ways of cooking codfish: au gratin, grilled, fritters...



After lunch, back to work: we had a very interesting experience, **Job shadowing about marine plasticology.** We had the opportunity of seeing the students of the 4th grade, primary school, during their lesson.

The lesson was a laboratory in which the students had to experience life like a fish: how can you eat without eating plastic? Of course it is quite impossible for the fish. Students in this way realize the importance of keeping oceans clean.



Agrupamento de Escolas Moinhos da Arroja, Odivelas / Portugal

20 th October 2021

DAY 2

- We had a workshop about Google Earth and Marine LitterWatch Tools.

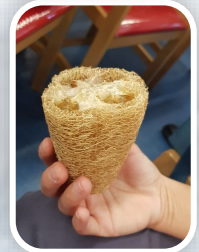
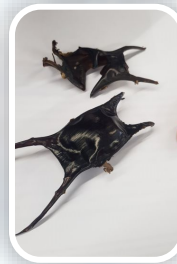
⇒ The coordinating school had created this project on Google Earth. "The results of the pupils' questionnaire data and the audit on the presence of plastics at school" were inserted in the project's Google Earth.

⇒ The coordinating school had also created the project on a mobile app called "Marine LitterWatch". It has been developed by The European Environment Agency to strengthen Europe's knowledge base and thus provide support to European policy making. Information and data on Marine LitterWatch is essential for tackling it! For this reason, whenever a mobility occurs, a trip to the beach in each of the partner countries will be carried out for observation, collection and analysis of elements, the new event must be inserted in Marine Litterwatch, indicating the name of the beach and its latitude and longitude.

- We had a meeting to standardize procedures on field trips and laboratory activities including lesson plans:

⇒ Plastics Detective; macroplastics and microplastics on the beach with 5th and 6th grades

⇒ Determination of the ph of water with 7th, 8th, 9th grades



- We had a job shadowing about learning scenarios using programming and robotics with pupils of Kindergarten.

The educator read the story "Is the sea my place?" to the pupils by projecting the images on a PPT. During the reading, the children were asked to interact with the story's diegetic universe.

Then, the pupils programmed simple tangible objects (blue-bot or docbot) to make them move in a learning scenario. They performed counting and set routes.



- We had a workshop on the creation of learning scenarios using programming and robotics in ocean literacy.

The pupils individually played a game which was drawn large on a piece of tracing paper. They rolled the dice and the robot moved forward the number of squares corresponding to the value on the dice. If he/she stayed on a special square, he/she performed the action described therein. The game ended with the player who reached the last square with the last question first.



21 th October 2021

Agrupamento de Escolas Moinhos da Arroja, Odivelas / Portugal

DAY 3

Finally the last day of our meeting has come! The first two days were not only full of exciting experiences but they allowed the teachers to finally meet in person, get to know each other better, and realize what a great team we are.

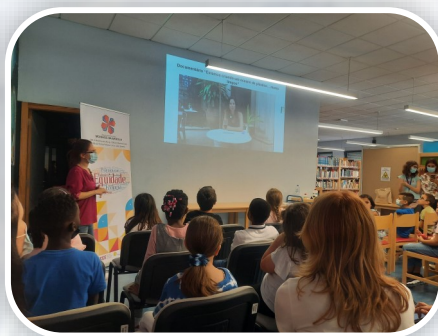
After some discussion on the flow of the project, our brains got loaded with practical implementation of the innovative method that will help students to develop their programming skills. The idea was to create interactive art objects with the wonderful kit named "Makey Makey". Telling the truth, it was rather challenging even for teachers. As a result, all the guests were deeply involved in the process and thanks to clear instructions of the Portuguese team managed to complete the task.

After such hard mental work, we all needed some rest and our generous coordinators surprised us again! The break started with the encouraging words of the school administration, and we all were pleased with appreciation and support of our project. A sweet surprise was waiting for us in the library. We all had a great chance to try traditional Portuguese treats prepared for us by the hosts.

The second part of Day 3 was devoted to the cultural component of the first project mobility. Our coordinators gave us a wonderful gift to explore the heart of Portugal's capital, by land and river, and plunge into the Tagus River.



Our lively animator shared myths, legends and curiosities during an entertaining ~90 minute show full of positive energy and passenger interaction. It was not "traditional" sight-seeing tour with a "traditional" guide, but rather a memorable experience that we will never forget. After the enjoyable adventure on the land and water, we went to A Severa Restaurant to taste "a cherry on the top"-the fado show accompanied by delicious food.



When our first project mobility was over, we all felt sad but totally delighted as we realized that our project team is the best!!!



Agrupamento de Escolas Moinhos da Arroja, Odivelas / Portugal

Our impressions

Unfortunately, three days was not enough to see everything! The programme at school was successful and the Hippo trip was exciting! We enjoyed the great fish dishes, the famous pastries called Pastel de Nata and Fado music.

Hatice Buket YERELI

I had the opportunity to see best practices and it was a pleasure for me to meet and learn from enthusiastic teachers from another culture. I would like to visit Lisbon again with my family to enjoy more of Portuguese cuisine, beaches and culture.

Hale BİLEK KAYA

It caught my attention that Portugal has a very rich history and they care about preserving its historical artifacts. It is also important that they benefit from the cork oak trees grown in the country as souvenirs and industrial areas. The story of Fado music also contains an important folkloric richness for the past. I also appreciated that the education systems are focused on gaining skills.

Erkan ERDİK



Turkey

School activities were very interesting and focused on the topic of our project. The teacher staff are very friendly and qualified.

Michela Furia

The Portuguese school has been awarded with International Green Flag Eco-School Quality Label, a fundamental initiative which encourages young students to engage in their environment by allowing them the opportunity to actively protect it. And all this was a very challenging to me!

Laura D'Ambrosio



Italy

We can absolutely assert that we lived a gorgeous experience during our mobility in Portugal and we would like to return!

Francesca Marziale

I've never been to Portugal before and I was pleasantly surprised by its charm and beauty. The welcoming sunshine and the warm embrace of the ocean breeze thrilled us at the same beginning. Lisbon is a lively city with rich history, beautiful old buildings, unique atmosphere, a mixture of cultures and colours. We felt well welcomed by the warm hospitality of teachers and students from the coordinating school and spent three days full of intensive job shadowing and workshops but also lots of fun. I'd love to go back to Portugal one day.

Ivelina Petrova

It was a short but intense and very beneficial visit. The host school was welcoming with a great organization of the educational process. I could see many similarities with our educational system but there are also some differences. Along with the helpful workshops and job shadowing we could taste the cultural part of Portugal via traditional meals and nice Fado music.

Marionela Nikolova

We spent three great days in Lisbon. Our hosts were friendly and helpful. Attending some workshops with students from the kindergarten and 5th grade was a nice experience. We were impressed by the excellent organization, the equipment in the classrooms and the dedication of students and teachers. Meeting with the teams from Turkey, Estonia, Portugal and Italy established a spirit of partnership and exchange of good practices. We found new friends but also like-minded people in professional aspect. We are looking forward to the next meetings.



Miglena Andreeva

Bulgaria



Estonia

During our first mobility in the gorgeous country of Portugal, in a marvelous and friendly school in Odivelas, we got to know amazing people from our fantastic project team!

Tatjana Jevtejeva

Marina Koster

Oksana Nikitina



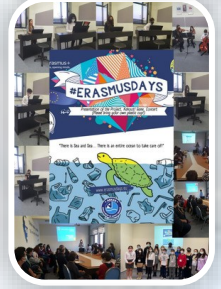
ARKAS SCIENCE AND ART CENTER, IZMIR-TURKEY



Activities of 1st Semester 2021-2022

October 2021

Erasmus days was celebrated at Arkas Science and Art Center in Izmir-Turkey. In the program, a presentation was made on Erasmus Programs, European Union and National Agency, the works of our project called Erasmus+ KA229 "There is sea and sea... there is an entire ocean to take care of!" done in 2020-2021 School Year and presentations about the preparatory meeting held in Portugal on October 18-22, 2021 and the Learning Teaching Training activities to be done in the next two years. A Kahoot game and a concert prepared by our Music students also took place in the program.



December 2021

"Marine Plasticology Sessions" started at Arkas Science and Art Center, Izmir in Turkey. Our students started a very enjoyable journey. They had a lot of fun during the whole lesson.



4th grade students watched videos and presentations about marine pollution and decomposition time of plastic wastes. They observed the rubbish material in the sand box, wrote the types and quantities of waste in the tables and did the fishing food activity.



During the laboratory activities, 5th-6th grade students found interesting the sand, crustaceans, waves, and stones that changed color when wet. The students examined the sample given to them with a magnifying glass. They sorted out what they found different and interesting. Then they examined the sand samples with a magnet. They discovered that mostly black grains of sand were attracted by the magnet.



In Chemistry class, 7th-8th-9th grade students brought samples of seawater from different parts of Izmir for the experimental activity. In order to create awareness by providing information about the chemical hazards caused by the increase in ocean acidification and its negative effects on the creatures living in the sea, the pH of the sea waters taken from different regions was determined with phenolphthalein, blue litmus paper, red litmus paper and universal pH indicators. The last measurement was made with a PH meter.

January 2022

The Erasmus corner was created in our Erasmus Meeting Room.

During the "Marine Plasticology Sessions" held at Arkas Science and Art Center, İzmir-Turkey, the students examined the samples collected from the beach near to the Center in the Biology class. Then, they also studied rocks containing different minerals in the Geography class. They examined lots of them and made an experiment to discover minerals that contain calcium carbonate.



February 2022

An activity on pollution in seas and oceans was held by the Guidance Service at Arkas Science and Art Center, İzmir-Turkey. The purpose of the activity was to raise awareness on the pollution in seas and oceans. The Special Talent Development and Support Education students wrote on the Fishbone Diagram the reasons of the pollution in the seas of our country and the world. Then, they discussed their proposals to solve the problem.



Our School "I.C.S. Nereto- Sant'Omero- Torano Nuovo" Italy



Many interesting initiatives have engaged the students of the Comprehensive Institute of Nereto Sant'Omero Torano Nuovo in order to develop the aims of the Erasmus+ Project "There is sea and sea...there is an entire ocean to care care of" and the issues of ocean conservation has been the focus of a dedicated teaching unit (UdA), through which each teacher explored the topic of ocean conservation in his classroom so that the problem was experienced in a multidisciplinary way.

#plasticree Day

On November 7th, 2021, students from **Torano Nuovo** and **Sant'Omero** belonging to the **Ecological Brigade**, in collaboration with the municipalities and many local associations, promoted the cleaning of the Adriatic sea beach between Alba Adriatica and Martinsicuro. They involved passers-by and collected 300 kg of waste: plastic, glass and bulky waste. It was an exciting and challenging experience for students who were very happy to share their commitment with their parents, family and friends and to raise awareness of the protection of the sea.



Activities carried out at the Kindergarten of Nereto

The 5-year-old children of Nereto's Kindergarten Section F, led by their teachers, have created many beautiful works on the subject of the sea with the techniques of collage and mural and mixing paint and recycled materials.



They also wrote the story tale "Nami and Fibi: a sea to be saved", using the narrative technique of Kamishibai, which is a kind of theatre of Japanese origin, very suitable for children because it creates a very engaging and fun atmosphere.

The story talks about the friendship between a courageous girl and a small whale and leads children to identify with the story and to understand that everyone can play an important role in safeguarding our seas.

The Kamishibai theatre proved to be a useful technique for the dramatization of the story, which the children experienced with great participation.



Finally, students created a game on separate waste collection.



Even the 3-year-old children of Nereto's Kindergarten section C and D used the kamishibai theater to represent the character of "Lisa the jellyfish" that they created. They made also beautiful drawings in which they express their wishes and dreams for the future of the little jellyfish.



The 4-years-old children of **Nereto's Kindergarten section A and B** performed the story of "The fisherman Tatio and the turtle". This story has been chosen to talk about marine litter and to teach children to respect the sea and protect the animals that live in it. Then they created the small turtle by using recycled materials.

The 5-years-old children of **Nereto's Kindergarten section E** joined the Ocean Care project with enthusiasm. After discovering some properties of water (ex. oil does not mix with water, etc), students had fun creating a small ocean in a bottle.



Then teachers introduced the topic of pollution and the biodegradability of plastic by reading the book "A planet full of plastic and how you can help" by N. Layton in a circle time and they discussed together about the problem of marine litter. Children listened very carefully and they were very worried about effects of pollution on the environment, so teachers invited them to create a funny basket, **Mr. Plastic eater**, to recycle plastic objects.



A small fish tank was constructed and filled it with plastic caps; children have cleaned the water and released the fishes. This activity has been proposed in order to teach them a right behavior and to take care of the environment.

Moreover they set up a theatrical performance in order to let the children understand the negative effects of the pollution on the environment. Freely adapted from the book "The stormwhale" by B. Davies they read a story called "The friends of the whale".



"We are we are very satisfied and pleased to participate in this project, which is so important for the education of our students in environmental sustainability", said the Director of the institute, Mrs. Laura D'Ambrosio. "Now we look forward to welcoming our project partners to share the joy of meeting and other interesting discoveries, here in Italy".





Exhibition OCEAN HYPOXIA

Throughout the 1st school term, the 8th grade classes, in the subject of Visual Education, held an exhibition of works with the theme OCEAN HYPOXIA, representing the ocean in an abstract way, with a word superimposed. This word symbolizes a rallying cry to the entire school community.

From this exhibition, the students - authors of these works, in the subject of Natural Sciences, promoted a debate about what is causing

the reduction of oxygen levels in the ocean and the consequences of this phenomenon on the organisms present in marine ecosystems.



World Animal Day

World Animal Day is celebrated annually on October 4th.

The date was chosen in 1931 during a convention of ecologists in Florence, Italy. The choice took into account the fact that October 4th is the day of St. Francis of Assisi, the patron saint of animals.



In Moinhos da Arroja School Complex, this day was marked with pre-school children and, as the unifying theme of the whole group is the same as the theme of our Erasmus+ Project KA 229, "THERE IS SEA AND SEA, THERE IS AN OCEAN TO CARE FOR!", the favored animals were the SEA ANIMALS!!

All the preschool classes worked on the story "The Little Sailor Mouse", by Luísa Ducla Soares, which tells us the adventure of a little mouse discovering his dream of becoming a sailor. With this story, the children practiced the technique of retelling and made illustrations for the story, using various techniques: drawing, cutting, gluing, filling with wearable material (egg cartons, toothpicks, dried leaves, plasticine...).

At the end, each student made his "Sailor" and placed it in a big boat, built collectively. The motto of this boat was "Together we are stronger in preserving the OCEANS!!"



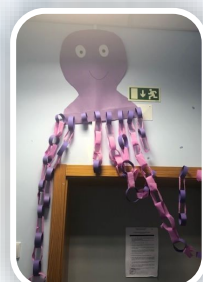
National Sea Day in PORTUGAL

November 16th is National Sea Day in Portugal. The celebration of this date aims to highlight the importance that the sea has for Portugal's history and identity.

At Moinhos da Arroja School Complex, pre-school children and primary school students participated in a virtual visit to the Lisbon Zoo, focusing on the marine species. The session was led by a Zoo biologist and had dolphins, penguins and pelicans as special guests! Lasting about 40 minutes, this session also covered different topics related to biodiversity conservation.



After the end of the "visit", the pre-school children explored the story "The Rainbow Fish", by Marcus Pfister, and recreated fish, using several techniques: painting, cutting and pasting, reusing various materials for filling. You can see, through the photos, some of the work done by the children!



The primary school students explored the story "The Tinkling Octopus", by Ruth Galloway, and conducted research on this species. Then, they dedicated themselves to building a "giant" octopus that they placed as a decorative element on their classroom door!



“Angel Kanchev” Third Secondary School, Varna, Bulgaria



As a part of our “Marine Plasticology Sessions” we decided to initiate the ideas we got from the nice job shadowing during the meeting in Portugal. The session started with videos and presentations about marine pollution and students learnt how long it takes to different types of plastic to decompose in nature.

Students from 4th grade enjoyed a lot the way they “Ate like a fish”. While they were trying to catch fishes’ real food, they realized it’s very hard to do that without catching micro-plastics particles and eat them.



“What does the sand hide” was the other experiment which was carried out. Students were given a box of sand, taken from the Black Sea beaches, which they had to examine carefully. They had to remove the rubbish they found in the sandpit and write down in the protocols the type and the quantity of rubbish they found.



Another experiment was to determine the pH of the sea water. Initially students were introduced that the pH is a measure of the degree of acidity or alkalinity of an aqueous solution or liquid. They have brought some water from the Black Sea which Mrs Miglena Andreeva analyzed using litmus paper. For comparison some more analyses were done with Coca Cola and baking powder. The results were compared by using universal pH indicators.

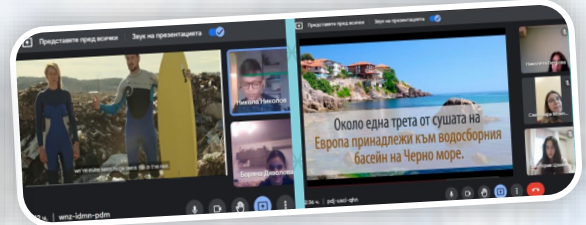
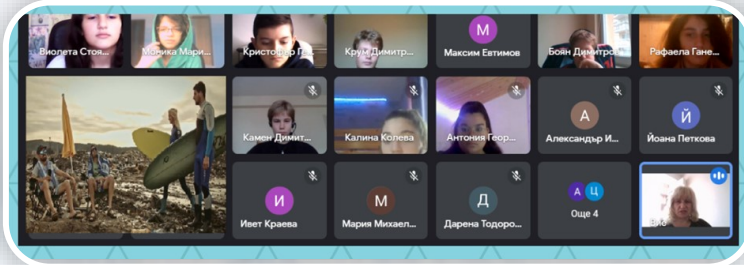


Students from all ages and grades from Angel Kanchev Third Secondary School were excited to take part in the “Christmas and New Year Cards” exchange challenge. Some of the children, being taught online, drew at home and brought their cards to school. Others worked alone or in groups with the help of their teachers. They were happy to greet their pals from Portugal, Turkey, Italy and Estonia with over 80 handmade cards. The excitement was even higher when they received lovely greetings from their friends abroad.

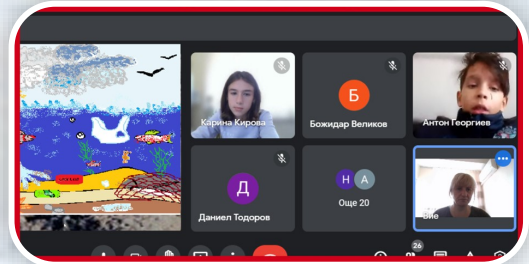


October 31st is the International Black Sea Day. Scientists remind that each of us can help to protect it by not leaving garbage on the beach, not throwing plastic bags here and there, not pouring dangerous chemicals into the sewage. Students and teachers from Angel Kanchev Third Secondary School observed this special day with several initiatives:

- Watching videos about the Black Sea followed by a discussion;



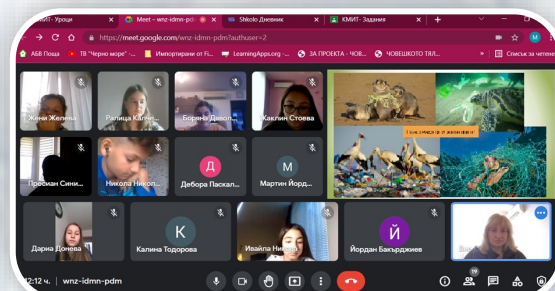
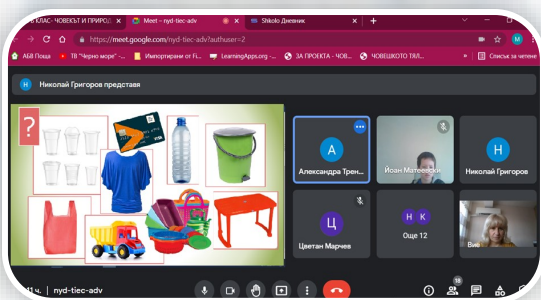
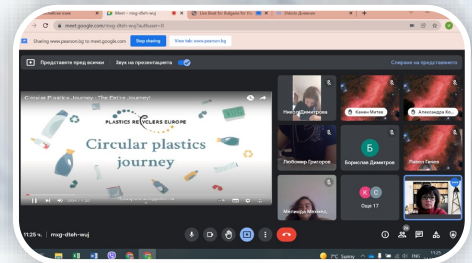
- Computer drawings on the topic: "I don't want to see my favorite sea this way";



- Cleaning the Black Sea coast with the support of NGO Native Balkans.



The European Week for Waste Reduction was from 20 to 28th November. Students in Bulgarian schools were taught online but it wasn't an obstacle to organise some group discussions to raise plastic awareness. Members from the School Ecological Brigade took an active part in it. More information about the European Week for Waste Reduction you can get here: <https://ewwr.eu/>.



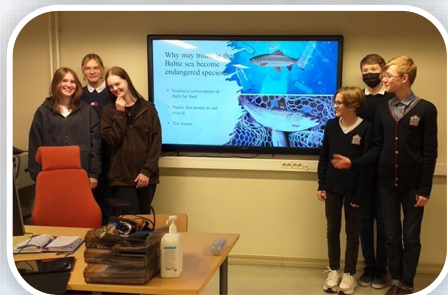
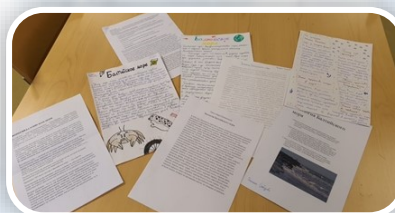
Baltic Sea Endangered Species



In October, the exhibitions 'Unseen Oceans' from the American Museum of Natural History and "The Baltic Sea in the

World Ocean" from the Estonian Maritime Museum were opened at the Seaplane Harbor, Tallinn. Estonian scientists participate in top-level research projects exploring the world's oceans, which is why this topic has been brought in a popular scientific form to the museum visitors as well.

The Baltic Sea is one of the most studied water bodies in the world, which is why an exhibition introducing our home sea was created. This exhibition is the Estonian Maritime Museum's second cooperation project with the American Museum of Natural History, which is one of the largest museums in the United States. Our students saw the literally illuminated unseen frontiers of our ocean world.



The current stage of the project is devoted to a research work on endangered species of the Baltic Sea. The 5th grade students of Sakala School looked for the information about seals, seagulls, trout, eel, and other Baltic Sea creatures under the threat of extinction. After that, they prepared the reports to be put on display for the school community to get acquainted with. Recently, the 5th-graders have composed their stories about the chosen animals in Russian. Later, the 8th-graders will translate the most interesting ones into English to send them to our Italian partners for illustration.

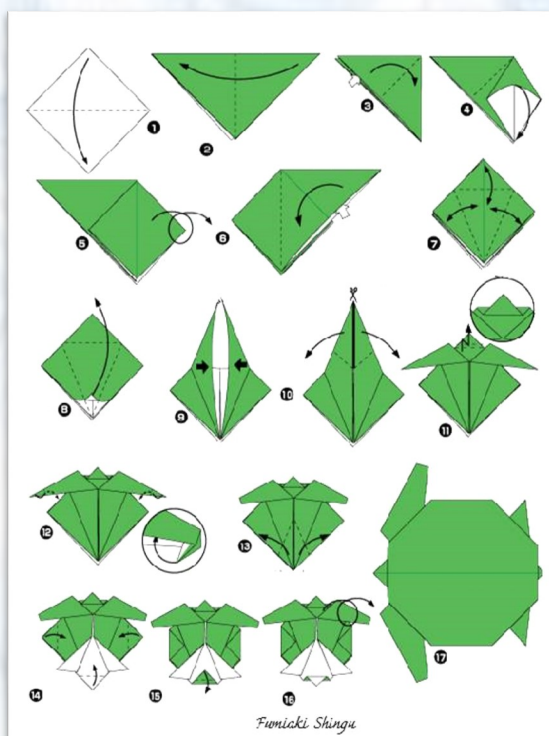
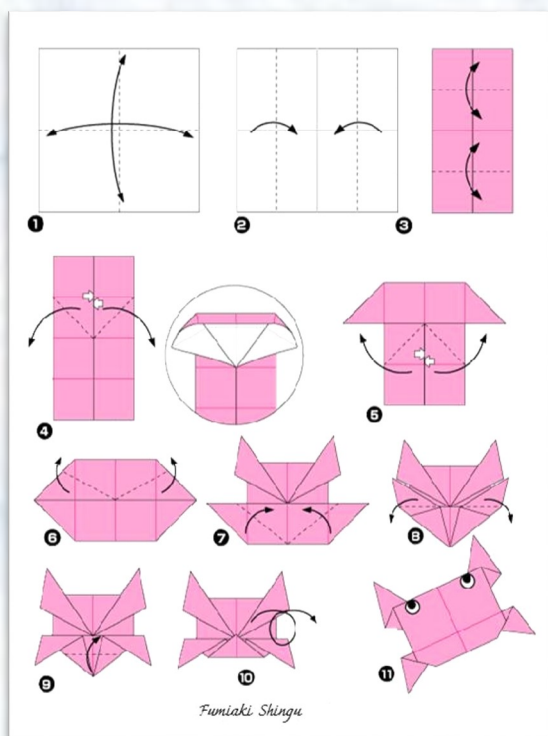
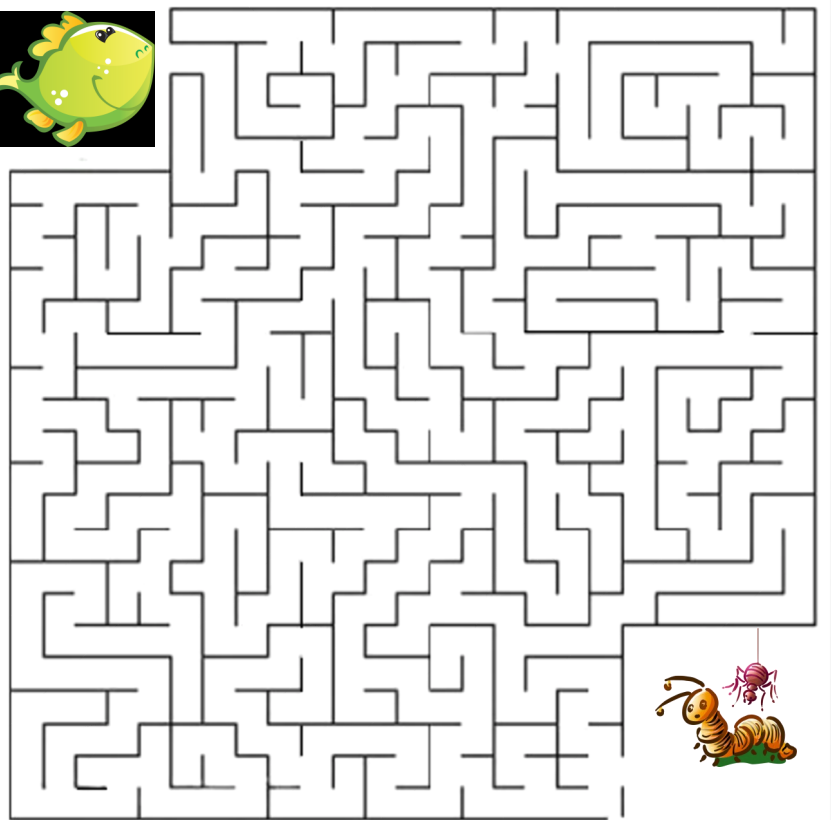
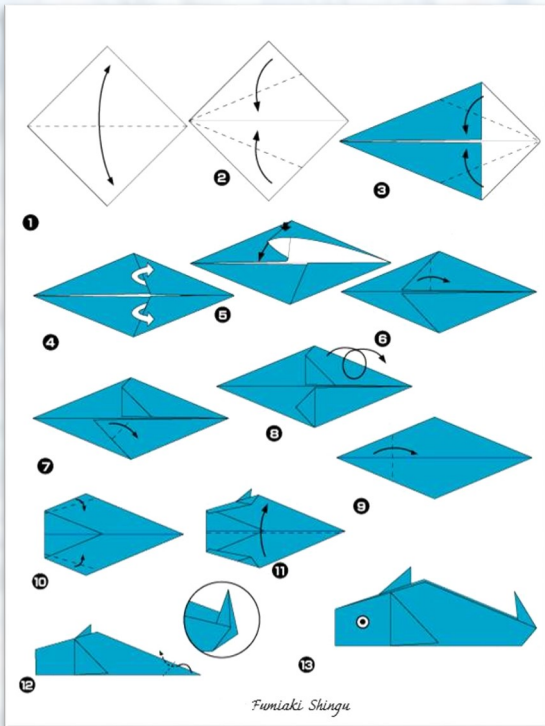
The 8th-graders also did a lot of research and then presented the result of their work to their schoolmates. Their PowerPoint presentations were informative, convincing and entertaining at the same time. At the moment, they are looking forward to reading and then translating the favorite stories by grade 5.



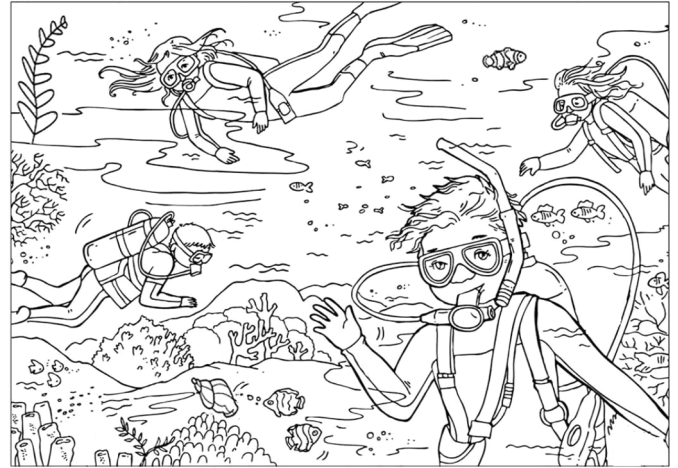
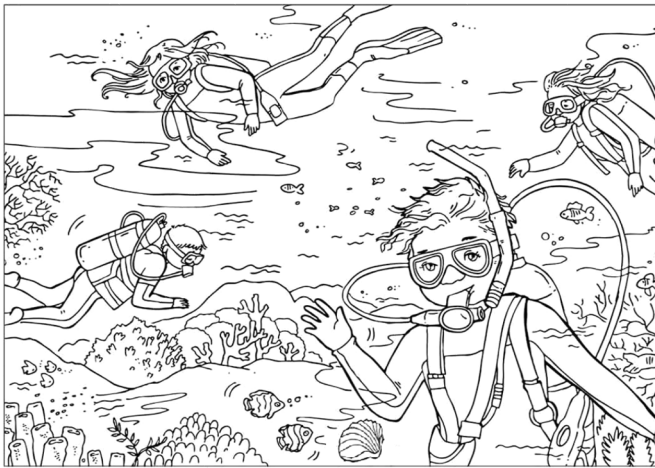
Fun page

Help the fish reach the worm

To make origami



Find 10 differences.



FIND 12 HIDDEN OBJECTS IN THE PICTURE



Did you know that...

The amount of water on Earth is equal to 1.5 billion cubic kilometers - enough to fill 800 trillion Olympic-sized pools.

If all this water is distributed evenly on the earth's surface, its depth will be 3700 meters.

Water makes up between 60 and 70 percent of the human body, with the amount varying with age and being greatest during the first few months of embryonic development. The body of a person weighing 70 kilograms contains 42 liters of water. Two thirds of this water is in the cells.

Human bones contain 31 percent water.

A person drinks about 1000 liters of water a year.

Wherever there is water on Earth, even if it is boiling, there is life.

Nearly 1 billion people worldwide have limited access to clean water.

A camel can drink 35 gallons (approximately 130 liters) of water in 10 minutes. Some species of rats can survive without water longer than camels.

Disclaimer: This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.