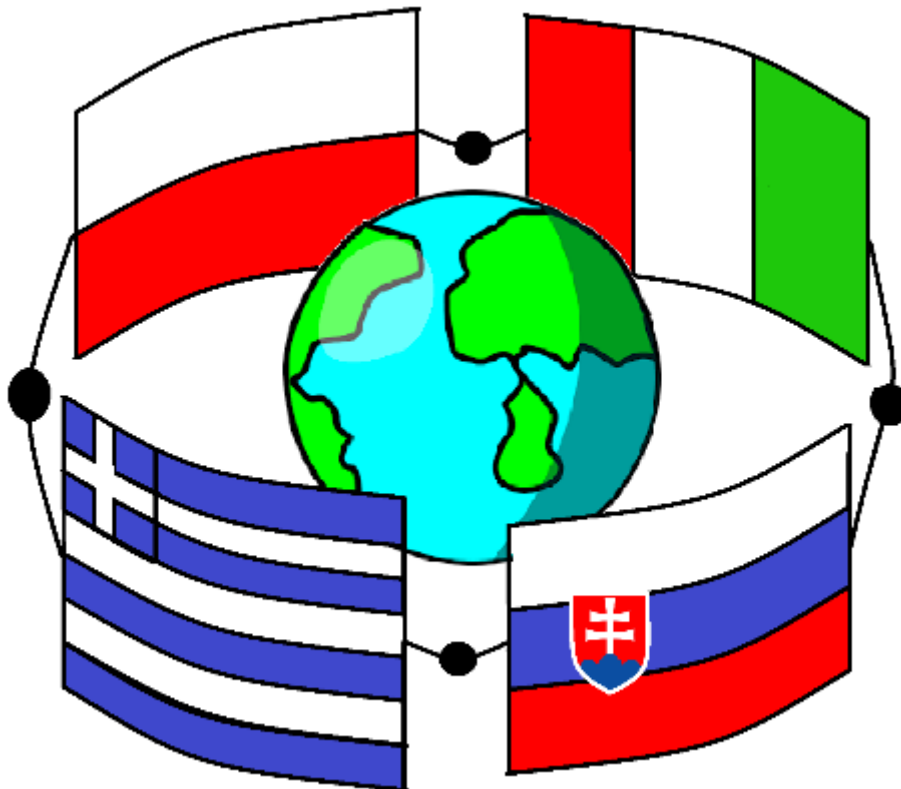




Erasmus+

*Atlas*  
*of environmental education*



**TITLE OF THE PROJECT: “THINK GLOBALLY, ACT LOCALLY! “**

**2017-1-SK01-KA219-035397**



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## **Introduction – preface**

The outcome of the Erasmus + project implemented in 2017-2019 is The Environmental Education Atlas. The Atlas contains methodologies and outputs from all schools and project activities. "Think globally and act locally" is a project that is based on the idea of small local activities that analyse local problems and help global direction and sustainable development. We focus on the "butterfly effect" theory, where small things can not only change attitudes towards environmental issues, but can also affect the whole approach. The project involves four partner schools from - Slovakia, Greece, Poland and Italy.

## **About the project**

General aim of our project is to change pupils' approach to their environment by speaking openly about environmental issue, global warming, climate changes and other serious environmental problems as well as to fill Rio-Declaration, Agenda 21 and its main idea „Think globally, act locally “. Environmental education is the way of reaching our goals by using creativity and culture of pupils, cross-curriculum education, innovative methods, increasing of literacy and integration of refugees from an early age to the adult age in international conception. Publishing the methodology of implementation of environmental education to school systems of all participants through pupils' science and art papers.

The priority of every human in this world should be focused on environmental issue. The solution to these environmental problems is education in early childhood, from preschool education to high school education in long life learning process. Even environmental science is very young interdisciplinary field, it is very actual and important issue nowadays and the solution of environmental problems. Through Cross-curriculum activities we intend to improve pupils' literacy in Maths, Statistics, Geography, Art, Sport, History, Biology, Chemistry, Physics and English. In the process of achieving, the project goals we use innovative education methods f.e. CLIL, geocaching, direct contact with nature, ICT, IWB, international cooperation with schools, government and nongovernmental associations too. We believe that sociometry and ecofootprint will be effective quantitative tool for validation of our project.



World environmental problems like global warming, climate changes, glaciers melting, rising of sea and ocean levels, disappearing of ozone layer, acid rains, greenhouse effect, deforestation, desertification, threats of biodiversity, population explosion, as well as other problems caused by man, result in degradation and devastation of land cover. This all can lead to migration of people from threaten or devastated areas. Not only natural disasters are the reason of people's migration, but also disasters caused by man's activities (wars, building dumps, motorways, nuclear power plants etc.).

Majority of people think that these changes are not their problem. However, every man has an impact on their surroundings that can cause some changes. The question is whether they are positive or negative. Environmental education deals with these problems and tries to find solutions to make life of people friendlier to their environment. We can prevent migration caused by man by minimizing their impact on it.

Only carefully and systematically planned environmental education implemented from an early age of the child will prepare a young person for life in nowadays globalized world, where focusing on solving environmental problems is necessary. By this way, implemented environmental education can prevent the deepening of mentioned problems and help to change people's thinking and work on the sustainability of the Earth. The ancient Indians said: „We do not inherit the Earth from our ancestors, we have borrowed it from our children”. We shouldn't forget about our children and future generations and save the Earth for them.

Environmental education is the way of presenting different environmental problems, speaking about them, finding solutions and motivating to work toward their solution. By increasing the quality of educational process, we can minimalize environmental problems. This project is about different interpretations of actual environmental problems, discussions with pupils and learning how to prevent this issue in different countries of one United Europe, that is nowadays hardly tested by economic, environmental problems and migrations. This problem is crucial because new people from different non-European countries don't have any relation to environment and it is necessary to speak, learn, talk and understand it.

The approach of young people to environmental issue presupposes the use of tools that contribute to effective teaching and learning in more interesting way. One such tool is innovative learning with elements of science, art and use of new technology.

Surveys have shown that through the education, difficult and complex concepts can be easily understood even by young people, that raises awareness and starts the action of individuals.

In our project we would like to point out environmental migrants. These people are people who were forced to leave their homes temporarily or permanently, because of environmental disruption (natural or induced by man), a phenomenon which endangers their existence and has serious effects on their quality of life. By our final product, The Atlas, we will raise awareness and educate community about these environmental problems.

The causes of the creation of environmental migrants are attributed to three types of environmental changes:

- catastrophic events that cause population movements
- gradual degradation of the environment that creates condition for migration
- human interventions targeting towards the population evictions (war, terror, poverty, disease...).

Children have no prejudice and they are readily willing to explore the social consequences of different environmental problems. This will ensure that future citizens of European countries, through education and environmental study, will have a greater appreciation of the environment, leading to greater understanding of the diverse world we live in. The innovative education using new technology, innovative methods, cross-curriculum, national art can define approach to this crucial issue. The wisdom in this area is invaluable and should be taught to our children. Our project itself creates a rich foundation for children that enables them to recreate experiences through the medium of art, particularly in pre-primary and primary schools. Through Science, songs, music, visual arts, didactic games, theatrical expression, use of IWB, ICT, direct connection with nature, international debates and trainings we increase literacy and awareness. By practising project activities, we head to long-life learning about environmental issues.

The transnational character of this project is based on the strong belief that such important issues, as the ones mentioned above, should be dealt by different participants who will add their individual point of view and strengthen the validity of its outcome. Pluralism of opinions, diverse cultures and environmental backgrounds, different social contexts and educational systems, different skills and expertise qualities are meant to mingle productively for the benefit of all participants.



## Participating schools



*Základná škola, Ul. Sv. Michala 42, Levice, Slovakia*

- coordinator of the project:

PaedDr. Marta Botková, headmistress, Mgr. Darina Trnavszká, deputy,  
Erasmus coordinator

PaedDr. Peter Varga, PhD., coordinator of the environmental education, project team member  
Mgr. Mariana Bátorová, Ing. Miroslava Kupčiová, Ing. Zuzana Jančová, Mgr. Miriam Fungáčová – English teachers, project team members

Mgr. Martina Šúthová, PaedDr. Jana Valkovičová, Ing. Dana Lalková – participating teachers

Our primary state school is a medium sized, located in Levice, the south-west part of Slovakia. It is attended by 464 pupils of the age 6 to 15. We have 9 grades and 41 teachers. The first level includes grades from the first to the fourth. The second level is from the fifth to the ninth grade. School curriculum focuses on Sports, Foreign Languages, Environmental Education and healthy diet. We have mixed sport classes. The boys are trained by professional trainers and play football in our successful school teams. The girls play volleyball, basketball and football. There are other sports too, like table tennis, boxing, figure skating, dodge ball and swimming. Pupils can develop their talent and skills in several afternoon activities which involve sports, languages, art, dance, chess, hiking, reading etc. We cooperate with local authorities and organisations (Police, Library, the Fire Department, the Town Hall, the Army, psychologists) and this knowledge and expertise of opening the school to the local community and creating cooperation bonds, we are willing to add to this project. We took part in one multilateral project Comenius and built a good partnership with our international partners from Finland, Cyprus and Germany. Every year, our school organizes school excursions to different countries f.e. Hungary, Austria, France, Italy and England. Through international cooperation we learn more about different countries, their culture and life. We are eager to pick up new ideas and things from different school systems and improve our school 's future profile.

Having experience in the international multilateral project Comenius, we gained valuable knowledge on organisational matters and the ways a school can contact other organisations and work with them for the benefit of the students. We created the blog of the project, a website, led the skype conferences with pupils and teachers of partner schools, printed the calendar, created the logo of the project, wrote a lot of articles about the activities and



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appeared on the local TV. Our teachers took part in eTwinning training courses and then implemented eTwinning projects. Many teachers have taken training in using IWB and using new methods to enrich the educational process and we would like to expand this approach to the whole school community. Taking part in the project Erasmus plus KA1- long life learning programme for teachers, we gained experience in teaching with implementation of CLIL method in our school. Among the projects implemented in local area we did geocaching in Levice, focused on discovering nature and culture sightseeing in Levice. The second project "Building the community garden" shows traditional herbs and plants typical for the pupils' local area. We have also tried the Science methods in the research of local water sources that resulted in reward of University value.



*Publiczna Szkoła Podstawowa nr 17 im. Przyjaciół Dzieci w Radomiu,  
Poland* - project partner

mgr Marek Lipiec, Headmaster of the school, mgr Monika Górecka-Grzywacz – coordinator of the project, mgr Anetta Malmon-Tomczyk, mgr Barbara Kogut, mgr Joanna Operacz, mgr Aneta Stankiewicz – teachers

PSP nr 17 is situated near the centre of the city. It has 651 students (aged 5 -15 years old) and 73 teaching staff. Children come from families of different social situation, material status and levels of parents' education. For those from families of lower status, school offers free meals, books, materials, etc. There is also a pedagogical assistance given for both children and parents, who need advice, support, and help in solving their problems. There is a wide range of supplementary activities for students to develop their abilities and interests (sports, Art, computers, etc.) as well as classes to help students having problems with learning. They take part in many volunteer actions, visits to the theatre, museums, trips. All our students learn English as a foreign language.

PSP No.17 has a rich experience in implementing international projects. The teachers took part in creating and coordinating two Comenius Regio projects which had important impact for partner regions in developing the support for students' families. Moreover, the staff have been working together on other European projects: Comenius, ERASMUS+ KA2: cooperation of the schools as well as two Erasmus+ KA1 projects: Mobility of school staff. and many eTwinning projects, some of which were awarded with prizes. These experiences



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enriched both teachers and students' abilities in organisation and contacts with other nationalities. All teachers participated in many workshops, e.g. how to use whiteboards and other ICT tools. Thanks to the mentioned activities, the staff and students improved their communication, organisation and English skills.



*2 DIMOTIKO SHOLEIO ZOGRAFOU, Athens, Greece*

- project partner

Georgios Kappis – Headteacher of the school, Konstantinos Christofidis – coordinator of the project, Vasileios Anastasiou, Sophia Mpogiatzi, Kalliopi Mpalasou, Dionisia Plessa – teachers

2 Dimotiko Sholeio Zografou, Athens (2nd Primary School of Zografou ) was established in 1952. There are 14 classes, 320 pupils and 22 teachers. We have participated in many national environmental, cultural and health projects. In 2010 we participated in a Comenius project entitled “Getting our Health”. The population of our school is diverse. There are pupils from various countries, so we are sensitive to their integration as well as the integration of children whose parents were forced to move to our area due to unemployment. Through various innovative projects, as well as through music, art and drama we approach topics of this kind. Our pupils are sensitized and familiarized with environmental change and the effects it has on our lives. We organize exhibitions at the end of school year where they show their creations. Our staff are familiar with projects of this kind and many of them have postgraduate degrees in Environmental Education, Music, Drama, ICT, Art and Special Education.



*I. C. L. DA VINCI SAN GIUSTINO, Italy*

- project partner

Raffaella Reali – headteacher, Alan Rosi – coordinator of the project  
Paola Boncompagni, Cristina Tappini, Roberta Casi, Cristina Cristini, Dafne Gallorini, Emanuela Tarducci, Roberta Meozzi, Cristina Cancellieri, Silvia Cameli, Federica Rossi, Laura Pasqui, Debora Piomboni, Marco Panizzi – teachers

Our Comprehensive School consists of complexes of two primary and three secondary school 1st Degree, located In the Adjacent Towns San Giustino and Citerna (PG). The



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individual plexuses of Primary Count 86 and 83 pupils, while the three secondary 86, 165, 220, for a total of 646 Students. Multicultural Component is accentuated and varied, the foreigners are 11.3%, in the complexes of Pistrino are around 20%. Among disabled and Special Needs Pupils with certifications are now 8.2%. The total staff, now, consists of 1 headteacher, 24 + 2 Primary teachers, 4 teachers a Determined time, 50 of the Secondary and 16 assistant Personnel Unit. The complexes are distributed in surrounding municipalities, reality typical of small Italian centres... The school enjoys the benefits and suffers from the defects of belonging to a small community. The people are very interested at the school, and a very spontaneous collaboration is established between the staff of the School, Local Authorities and the parent component to address the needs plexus, achieving great results with shortages resources. On the other hand, the reality of the country usually brings an attitude close and self-centred. European prospects are distant from the vision of families and children, as well as teachers and administrators. In one of the complexes Primary WE ARE distinguishing for having adopted, first reality in the Umbria region, the educational model "scuola senza zaino" "School Without Backpack", attracting the interest of the Community and numerous scholastic Reality That also draw our experience, and receiving great results in performance of students, in teaching and in appreciation by the families of students. English is taught from primary school (6 years), French is taught from secondary.

The reality of our complexes is becoming increasingly multi-ethnic and first, it needs cultural openness. To internationality and hospitality, the mastery of languages as a bridge to shorten the distances. Many times, proficiency in a second language is seen as a moral obligation to look out and interface in the reality of the 21st century, but sometimes they lack the concrete action plans. As a Comprehensive School we are working to make this process active by participating in a training network with other schools in the area, that offers numerous and continuous training on foreign languages, never stop learning, the Entrepreneurship and developing teachers' skills in view of a European citizenship more and more active. We did eTwinning activities, we are encouraging, trying to involve more teachers of all types and subjects, and we will work in synergy with other European schools also to an application for a KA2. We applied for ka1 in a project about English language for all the teachers and most of all for primary teachers. We have activated, with the help of third parties, summer camps in English as an additional activity Internationalization for us and for the community (which we



requested responded enthusiastically to the proposal). For years our students of the third classes of secondary schools acquire European certificates of KETs and DELF languages.

We are working to offer already this summer training activities of a foreign language to Italian-speaking and Italian L2 for foreigners during the summer period of suspension of classes, as well as ensuring, in synergy with all the resources that the local organizations, they provide, cultural and linguistic mediation interventions within our complexes. Every year we take part in a twinning with a French town (this year Carros) that after various activities that go beyond also the boundaries of educational institutions involving reality and the territory or administrative, culminating in mobility of about 25 students of the secondary level who, accompanied by language teachers, travel to the twin town for a few days as? guests of the families of their correspondents, who in turn are staying with us.



## **Introduction to environmental education and education for sustainable development**

*“Now that we have learned to fly the air like birds, swim under water like fish, we lack one thing—to learn to live on earth as human beings “. G. B. Shaw*

Environmental education and environmental issues are now playing important role due to climate change, global warming, melting of glaciers, overexploitation of natural resources, increasing waste and other environmental problems that affect human life.

Many people think that they cannot affect these changes, but every human being has an influence, their ecological footprint, on the surrounding environment which they change. The question is whether in positive or negative way. However, environmental education points to these problems and people's lives, which should be more respectful to environment and minimize human impact on it.

Ancient Indians used to say, “We do not inherit the Earth from our Ancestors, we borrow it from our Children.”

We should think of our descendants and next generations, to reclaim the Earth for them.

Technical progress should be a big help for us, not a negative phenomenon destroying the environment. We should be aware of the sustainable development of the Earth, which was mentioned by Ms Brundtland in 1987 and later elaborated at the World Summit in Rio de Janeiro in the principles of sustainable development in the 21st century - Agenda 21.

The term of environmental education is composed of two parts, environmentalism and education. Environmentalism is the science of the environment. This science is being studied comprehensively. It is an interdisciplinary science using knowledge of natural, technical and social sciences (Fryková, 2010). Nevřelová (2008) describes environmentalism as a field that deals with the connections and processes between all kinds of human activity and the environment which it is realized in and is composed of several directions and focus.

Education is defined as an activity that aims to acquire and improve the intellectual, moral, political, working, esthetical and physical abilities and characteristics of human (Pavlík et al., 1985). Education in the best sense of the term is required to understand as a term covering



two parallel processes - upbringing and education, which are inseparable in the meaning of personality development (Duchovičová et al., 2012).

Education as a process in which the pupil acquires knowledge and activities, creates knowledge and skills, develops physical and mental abilities and pupil's interests (Petlák, 2004). In modern pedagogy, the term of upbringing is named education and refers to it in the best sense of the term. (Kurincová et al., 2008).

In general, we aim to contribute to the pupil's education to understand, analyse, evaluate the connections between human and his environment based on the knowledge of the natural laws affect the life on the Earth, to know and understand the connections between human population development and the environment in different areas of the world and to understand the connection between local and global issues and their own responsibilities in relation to the environment. Environmental education is the way which can affects the environmental feeling and behaviour of pupils (Fryková, 2010).

Vincíková (1998) describes environmental education as an education of an individual whose value system enables him to wisely and sensitively act to protect and preserve the biodiversity of life in all its forms, capable of compassion for nature and other living creatures and to accept voluntary modesty as a way of life, environmentally acceptable.

According to Zsók et al., (2013) a significant environmental impact, everyday life style and pupil consumption behaviour has environmental education.

The environment (hereafter RU) can be understood from a variety of points of view, and so far there is no uniform, generally valid definition.

Among the first and the oldest definitions that characterize the environment is the 1967 definition adopted by UNESCO by Professor S. Wik of Norway, who understands that part of the world (the universe) with which the human being interacts, that is, under the RU. influences and adapts to.

Petro – Binekóvá (2008) state that environmental education is an educational process aimed at conveying environmental awareness as well as creating a positive relationship to environmental issues from early childhood to adulthood.

The urgency of learning and living in a sustainable way, preserving the world's natural resources and caring for the Earth today, so that future generations can meet their own needs and live on our planet is characterized by Palmer (1998) as environmental education.

A sustainable way of life on Earth is essential for sustainable development, defined by Brundtland in 1987 as a development to meet the needs of present generations without compromising the ability to meet the needs of future generations (Petrovič et al., 2011).

Rynda (2000) states that sustainable development can be defined as a comprehensive set of strategies that enable economic instruments and technologies to meet people's social needs, while fully respecting environmental limits.

Some authors, such as Gallay (2005) defines environmental education as an upbringing of an individual whose value system will enable him to wisely and sensitively act to protect and preserve the biodiversity of life in all its forms, willing to take responsibility for his actions and accept voluntary modesty as a way of life bearable for living environment. Similarly, Frantz - Mayer (2014) characterizes environmental education as an education that lends knowledge and experience and creates a change in beliefs, attitudes and behaviour.

On the other hand, Kompolt et al. (2002) report that environmental education is of a cross-cutting nature, synthesizes knowledge from natural, technical and social sciences, and defines it as an educational process aimed at conveying environmental knowledge and creating a positive attitude towards environmental issues. Environmental education can be institutionalized in the form of lessons and lectures in schools, or it can be of a popular-educative nature if it is presented in hobby groups, NGOs, media education and the like. The issue of sustainable development is an organic and important part of environmental education. We use both views on environmental education, as well as upbringing of an individual, but also as a part of the educational process, namely a separate subject of environmental education in a school educational program with the aim of developing a pupil's personality by acquiring the ability to understand, analyse and evaluate relationships between man and his environment, understanding the necessity of protecting the environment around the world.



## **Teaching methodology for project implementation**

In the implementation of project activities, we used dominantly the E - U - R method, which uses a constructivist approach and a way to critical thinking and higher levels of Bloom taxonomy. We also used some of the elements of project teaching as it is an international project. The essence of E - U - R is that it respects the mechanisms of natural learning - discovery, and is a universal tool to build any learning unit to resemble spontaneous learning as much as possible in a controlled learning situation. What does E-U-R stand for? It contains the initial letters of these words: evocation, awareness of the meaning of information and reflection.

Evocation is the first phase of the learning process. Its goal is to help pupils recall: - what they already know about the topic, what they think they know about it, what they think about them (brainstorming), what they think about the subject, etc. Evocation actually works on a simple principle - when we are interested in something, we start to be curious and we want to learn more about it. In addition, when we recall what we already know, we can engage new knowledge in our own knowledge structure, making learning more effective and more sustainable. The teacher, thanks to evocation, has a chance to better build on what pupils already know what they have experience - "better hit the nail on the head".

Awareness is the second phase of the learning process. In it, pupils process new information and place it in their own structure of knowledge (among the information they have already recalled and arranged during evocation).

Reflection is the third and most often neglected phase of the learning process. Now pupils reflect on what and how they learned (looks back). It is possible to reflect on the content (what the pupils now know about the topic, what they have confirmed, what they refuted, what questions they still don't know about, what else they want to know about the topic, etc.), as well as the processes (how to knowledge, what happened during the learning, whether the work was successful and thanks to it, etc.). Only now, during reflection, can the pupils realize what and how they have learned what progress they have made. It is an ideal field to focus on those moments that lie "a bit behind" the subject matter itself, for example, the development of key competencies, the emotions of pupils, etc. The purpose of reflection is to capitalize on the learning experience of the pupils in the future. The important thing about reflection is that it is



carried out by the pupils together with the teacher; it is therefore not an appreciation of the work of pupils by the teacher.

The E-U-R serves the teacher to plan his or her lessons while preserving the most natural learning features that are most effective for pupils. In addition to this model, there are many others, of course, with its efficiency and simplicity. Like all other models, he cannot be used dogmatically, but so that he can serve us, not teachers.

Source: [https://wiki.rvp.cz/Knihovna/1.Pedagogicky\\_lexikon/E/E-U-R](https://wiki.rvp.cz/Knihovna/1.Pedagogicky_lexikon/E/E-U-R)





## Project activities focused on environmental education and sustainable development

The management and implementation of project activities in accordance with the set objectives has been carried out gradually, according to the plan set by the partners. For each activity, a methodology is developed and subsequently the project outputs were reviewed at transnational project meetings.

### Planned activities and their implementation:

1. *Email Exchange between partners* - After project approval, partners used e-mail communication to plan and refine their project activities. In addition to e-mail, the coordinators used applications such as Messenger, Viber, What's UP to communicate the application. Applications allow immediate consultation between partners and coordinator and solve problems.
2. *To inform about the project* - all schools involved in the project informed about the project on their website, and several articles were prepared in regional newspapers.



Source: Regional newspaper - MY - TÝŽDEŇ NA POHRONÍ, Novinky z Levickej radnice



3. *The first official teachers' video conference*, start up the project activities – the teachers used the SKYPE © application for a video conference on the implementation of input questionnaires (expected) in the project, planned activities and the first project meeting held in Levice, Slovakia.



Greece team



Slovak team



Polish team



Italian team

*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c6124ca01.pdf>

4. *Initial evaluation of the project* – project partners filled out an initial questionnaire with open questions focused on project expectations. Teachers from the schools involved in the project expected the most often new knowledge in the field of environmental education, as well as learning about new cultures and information on school systems, school programs in general and environmental education.



5. *Erasmus+ corners*. Pupils create a notice board with the info about each partner country.
6. *Erasmus+ notice board* - each school prepares a notice board for disseminating the partnership's activities.

Schools created boards to inform them about project activities and project partners. The bulletin boards were one of the tools for disseminating and disseminating results and informing them of project news.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/be9cffe1.pdf>

7. *Management of school webpage about project* - schools created separate sub sites on their websites and sites, where they informed about the project, project activities, transnational project meetings and training activities.



Slovakia:



Poland:



Italy:



Greece:



**Schools' websites:**

Základná škola, Ul. Sv. Michala 42, Levice, Slovakia - <https://2zs.edupage.org>

Publiczna Szkoła Podstawowa nr 17 im. Przyjaciół Dzieci w Radomiu, Poland - <http://www.psp17.radom.pl/>

2 DIMOTIKO SHOLEIO ZOGRAFOU, Athens, Greece - <http://2dim-zograf.att.sch.gr/autosch/joomla15/>, <https://www.facebook.com/2odimotikozografou/>, <http://erasmusplusproject.weebly.com/>

I. C. L. DA VINCI SAN GIUSTINO, Italy - <http://www.icsangiustino.gov.it/ita/>

*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c51158841.pdf>

8. *Knowing me, knowing you!* – DVDs, PPT and videos-info regarding each partner country - countries made presentations and videos about themselves to get to know each other better. They presented them at the first meeting in Levice. The pupils' task was to prepare interesting presentations about the country, the regions, the district and the city where the schools are located.

Country	Presentations	Cross-curricular relations
Slovakia	<u>Presentation about school</u> <u>Environmental education at school</u> <u>Levice district</u> <u>Region of Nitra</u> <u>Slovakia I., Slovakia II.</u>	Geography History Regional education Environmental education
Poland	<u>Presentation about school</u>	ICT
Italy	<u>Presentation about school</u>	
Greece	<u>Presentation about school</u>	







Through eTwinning presentations, pupils could learn more about the countries, cities and schools involved in the project.

*eTwinning outcome:*

<https://twinspace.etwinning.net/60967/pages/page/422981>

9. *The introduction seminar led by a specialist of the environmental studies via skype in all countries at the same time, project terminology definition, participant's mind maps.*

The Slovak Environmental Education Coordinator prepared an initial seminar for school coordinators during the SKYPE © Conference. Schools received an introduction to environmental education - basic ecological concepts, environmental concepts, entry into the issues of nature and landscape protection, animals and plants, energy and waste.

10. *Project's logo created by pupils using various techniques. Schools logo competition - schools prepared their own project logos and presented the best logos at the first meeting. National project teams coordinated the creation of the logo. Pupils could use any technique - drawing, painting, or computer graphics.*





Italy



Greece



At the first project meeting, the project teams agreed that all logos could be used. In the frame of eTwinning as well as the logo on the cover of the “Atlas” we used the logo from Poland.

*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/bfac41a1.pdf>

11. *Mascot creation.* It will travel around the world, bring new stories, make friends in each school - the mascot was created by project teams at the first project meeting. It is a lion - according to the town of Levice, on his head he has a cap from Levice, on the neck he wears a scarf from Poland and cloak with flags of all countries. In his hand he carries an olive branch as a symbol of Greece and Italy.



The mascot travelled to all countries, where he met new friends and disseminated the results of project activities to make local environment better in the global context of environmental education.

*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c2da06e1.pdf>

12. *Comparing mind maps* by pupils, common and different views on project issue, environmental changes in all countries, different views on the same problems. On the basis of introductory lectures, the pupils worked out their “mind maps” to acquire the basic knowledge. The emphasis on conceptual maps was based on critical thinking, analysis and synthesis of individual environmental contexts.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c0bb8361.pdf>

13. *Pupils ecofootprint* in all countries, sociometry - the ecological footprint is one of the indicators of sustainable development and quantifies the human impact on the





environment. Pupils and teachers processed their ecological footprint on a sample of about 100 participants. They used the website of the Slovak Environment Agency, which is also in English. Using a short questionnaire, participants were able to identify their ecological footprint and at the same time a number of global hectares. They processed the results into a table. It was the first measurement of the environmental relationship before the activities aimed at changing the attitude towards the environment started. Basic information about the ecofootprint is published at the website - <http://ekostopa.sk/your-ecological-footprint>. Ecofootprint as quantifiable measurer is described and compared in a separate chapter

*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c1cac521.pdf>

14. *Create Eco calendar* with activities of special environmental days. During the first year the calendar was made by teams from Poland and Slovakia. Pupils from Poland created illustrations and pupils from Slovakia processed a calendar with significant environmental days. Teams agreed at the project meeting to select a special day to focus on and prepare a thematic day on environmental education. In the second year, the illustrations were created by pupils from Greece and Italian pupils processed the second calendar.



eTwinning outcome:

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c4f88a61.pdf>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c5107cc21.pdf>

15. *The First project meeting in Slovakia:* the presentation of each country's outcomes: calendar, mind maps and pupils' ecofootprints. Share DVDs, outcomes. Planting trees (10/2017) Leading: SK



The first project meeting took place at the Elementary School, Ul. sv. Michala 42 in Levice, Slovakia on November 7-12, 2017. School directors and coordinators of all participating countries joined these meetings. They evaluated the accomplished activities, and planned further activities and their methodology.



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We informed about the project meeting:

- in the regional newspaper: MY TÝŽDEŇ NA POHRONÍ
- on the Levice town's website <https://www.levice.sk/projekty-zs.phtml?id3=110191>
- on regional television –  
<https://player.vimeo.com/video/242555235?title=0&byline=0&portrait=0> .

The Department of Ecology and Environmental Sciences, Faculty of Natural Sciences, Constantine the Philosopher University in Nitra informed about project activities on the website - <http://www.kee.fpv.ukf.sk/index.php/en/?start=3>.

Participants were warmly welcomed by the Mayor of Levice. Project participants attended the Tekov Museum, Levice Castle, Synagogue and Calvary in Levice.

#### *16. Pupils survey "Through local problems to global environmental problems"*

**Purpose:** Point to urban and local problems of town. Based on pupil's observation, pupils process these problems, discuss environmental issues during lessons and analyse how to eliminate them with the connection to global environmental problems.

**Target group:** pupils

**Methods:**

- a. Theoretical introduction to the problem.
- b. Entering the problem.
- c. Observation in the field.
- d. Problem identification, description of the problem.
- e. Draft solution.
- f. Presentation of the problem.
- g. Discussion and connection.

**Solution:**

- a. During of environmental education lessons, pupils were theoretically getting to know with the concept of urbanism and the definition of urban and local problems.
- b. Teacher has entered the problem - to find problems in the country, specifically in the town. The pupils processed them in the form of a short report describing the site of the problem, documenting it with photographs, they could name



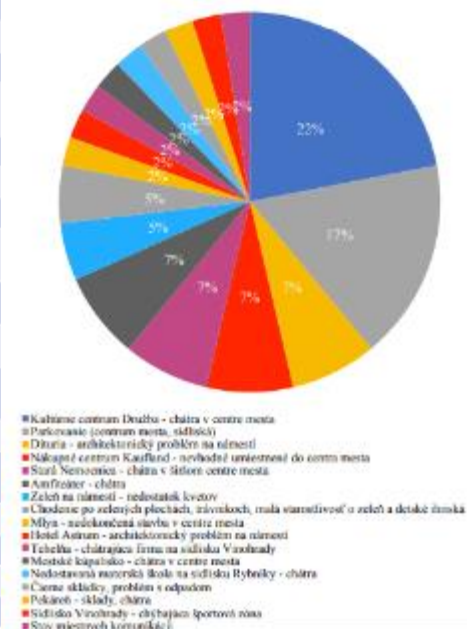
maximum three of them, at least one problem pupils meet on the way to / from the school or in their surroundings.

- c. Pupils near their residence observed urban problems and processed them in the form of terrestrial and photo documentation in the afternoon.
- d. After identifying the problems, they described them in a paper-based report, used ICT and photographs.
- e. Within their capabilities, they have solved problems.
- f. At the environmental education lesson, they presented their findings with suggestions for solutions.
- g. The pupils then discussed among themselves and in the groups the identified problems and solutions, together with the discussion they proposed solutions for the municipal self-government, which were directed by the town representatives and connection with global environmental problems.

### Slovakia:

The pupils identified the localities, that have been identified as urban and local problems of Levice town and its surround. Their results were processed into Table and Graph:

Problem identification	Number of pupils who have noticed the problem
Culture Center Družba-the building dilapidates	9 pupils
Parking (town center, housing)	7 pupils
Dituria - architectural problem in the square	3 pupils
Kaufland Shopping Center - inappropriate placed in the town center	3 pupils
Old Hospital - dilapidates in the wider town center	3 pupils
Open-air theatre – dilapidates	3 pupils
The green on the square - the lack of flowers	2 pupils
Walking on the green areas, lawns, lack of green areas care and playgrounds	2 pupils
Mlyn „ Mill“ - unfinished building in the town center	1 pupil
Hotel Astrum - architectural problem in the square	1 pupil
The brickyard – the dilapidating company in the Vinohrady housing estate	1 pupil
Swimming pool – dilapidates in town	1 pupil
Not completed building of nursery school in the Rybníky housing estate – dilapidates	1 pupil
More dumps, waste problem	1 pupil
Bakery - stores	1 pupil
Vinohrady housing estate – missing sports area	1 pupil
Condition of local roads, streets	1 pupil





Based on theoretical introduction, the pupils of 9th grade identified urban problems and the local urban area of Levice. Together they identified 17 problems. The biggest problem was the cultural centre Družba and the second biggest problem was parking in the town. Other problems were dilapidated buildings: an old hospital, an amphitheatre, an undergraduate school, a town swimming pool, Brickyard, the lack of greenery, black dumps, architecturally inappropriate buildings in the town centre - shopping centre Dituria, Kaufland, hotel Astrum or unfinished Mill. Besides identification and a photo documentation, pupils described the problems and suggested possible solutions to the problems, reconstruction or complete demolition of buildings or rebuilding new more useful places with using the European funds. The pupils had discussions about possible solutions, and they were also faced with Levice's town hall suggestions for solutions. All the problems were highlighted in the map. Based on the discussions, they decided to inform their representatives - the youth parliament and through the representatives of the pupils of our elementary school - to open discussion with local authorities and elected representatives of the town about the urban and local problems of Levice.

*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c910de9a1.pdf>

### **Poland:**

*Air pollution - SMOG:* Causes: Exhaust fumes, Coal fired power plants, Industry. Air quality in Mazovia is bad, warning level for SMOG in the district is exceeded quite often especially during the wintertime.

Possible solutions to the problem: The easiest and definitely the cheapest way to fight SMOG is planting trees and other flora. There are several species that deal with air pollution quite





effectively. Chimney filters installation. Using a good quality heating materials. Encouraging people to use public transport.

*Water pollution:* Cause: industry and household sewage. Possible solutions to the problem - Sewage plants construction.

*Illegal rubbish dumps (in forests, water bodies etc.):* Possible solutions to the problem: Encouraging people to reduce rubbish production and careful disposal, frequent events like „Clean up the World”. Locating more rubbish bins not only in the parks but also in the forests and leisure areas. Legal regulations – higher penalties.

*Deforestation:* Possible solutions to the problem: Educational campaigns, encouraging people to plant more trees, bushes etc. Forest planting by appropriate civil services.

Legal regulations adjustment. Renewable energy plants. Easy and cheap access to a household renewable energy source.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c8fea7e1.pdf>

### **Italy:**

Tobacco: Industrial crops of tobacco are made in just 3 months 16 applications between pesticides and fertilizers: highly toxic substances. Pesticides, such as herbicides, fungicides, repellents are chemicals used in agriculture to prevent crops being destroyed by diseases. Advantages: no disease and a greater quantity of crop. Disadvantages: contamination on whole ecosystems and biodiversity. All products are highly polluting for ecosystems. In our Valtiberina countryside, in certain months, you may feel a strange smell of soap accompanied by an annoying burning throat. This is caused by the use of anti-doping products of which they



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say “they stink but do not hurt”. The pesticides that do not reach the culture to be traded, spread in the surrounding environment causing a phenomenon called “drifting effect”. The drops of chemical mixture can pollute the water, the soil, the air and strike man as well as spontaneous plants and useful insects. The 2009 directive on the sustainable use of pesticides is largely not applied by EU countries as an official report by the European commission, after 8 years from the approval of the law.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c6e02061.pdf>

### **Greece:**

Athens, like all major cities, faces many environmental problems. One of the problems of our city is the lack of greenery and parks. Athens has the smallest green area of all European cities. Just 2 m<sup>2</sup> per inhabitant. Increasing car traffic has created air pollution. Another major problem is noise pollution. As the traffic problem as in all cities is large, noise pollution is steadily increasing. A major problem is also garbage and cleanliness in general, which affect daily hygiene. In cases of heavy rain during the winter months, there are floods that cause many problems.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c7ef6221.pdf>,

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c5d0dea1.pdf>

17. *Investigation of causes that could be the reason of environmental migrants in participating countries*

Introduction and explanation of the term "environmental migrants".

**AIM:** Investigation of causes that could be the reason of environmental migrants in our country. Introduction and explanation of the term "environmental migrants".

**Methodology: Purpose:** Point to global problem of migration because it is actual issue in EU. Pupils search for information on internet, TV, in the newspaper etc. They define the term migrant and divide migrants into three groups: economic, social and environmental. They prepare PPT with general information about the topic. Pupils present PPT and lead discussion about the issue focusing on environmental causes of migration from local to global area.

**Target group:** pupils

**Methods:**

1. Theoretical introduction to the problem.
2. Observation in the field of migration.
3. Problem identification, description of the problem in PPT.
4. Presentation of the problem.
5. Discussion and connection.

**Solution:** PPT

**Slovakia:**

What is migration?

- A movement when a single person or a group leaves their home and go to another country.
- They often have to go a long distance to get to their final destination.
- Their stay at the destination is temporary or permanent.
- People migrate because their living conditions are bad or because of a job and for new experiences.





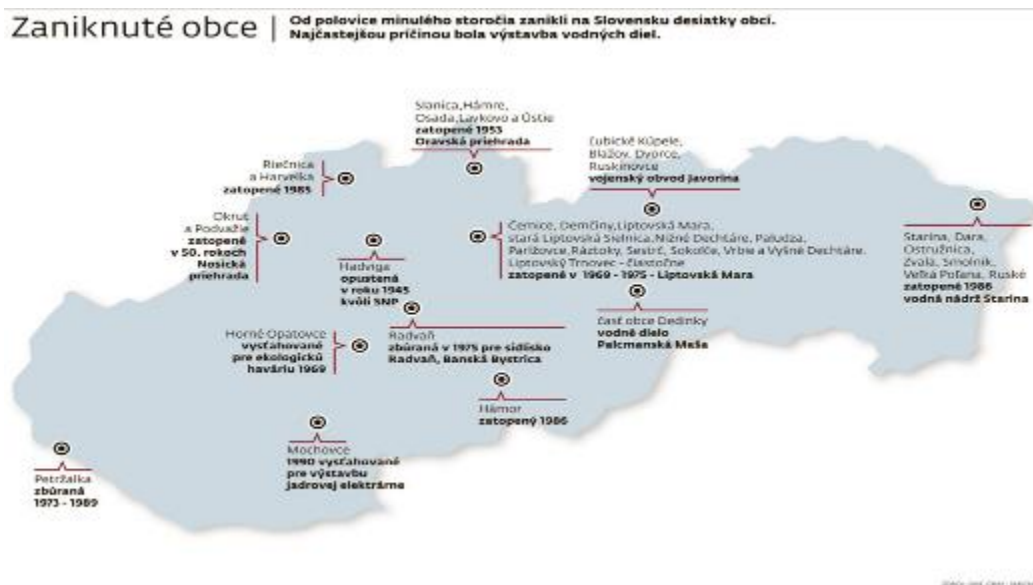


Reasons for migration - Environmental reasons- natural disasters, constructions of power plants and water tanks... Social reasons- war, political disagreements, bad civil rights ... Economic reasons - not enough finances, bad work position... Slovakia is not one of the traditional migrant destination countries. Until recently, the Slovak Republic was almost exclusively a country of origin of migrants, a country from which citizens migrated to foreign countries for various reasons. More significant changes were brought to Slovakia's accession to the European Union. In the period since 2004, illegal migration and asylum have decreased in the Slovak Republic and legal migration has increased four times.

Reasons of displacement of the villages and environmental migration:

- construction of a water works
- establishment of a military circuit
- construction of a housing estate
- ecological accident
- protection zone of a nuclear power plant





Source: <https://domov.sme.sk/c/20083673/vysidlenie-ludi-utrapilo-obce-ktore-zmizli-z-map.html>

*ETwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c6d267c1.pdf>

### **Poland:**

Baltic Sea takes beaches and seaside areas. Erosion systematically affects whole coast and more than a half of it is affected intensively. In some places half of a metre of the land is taken by the sea every year. Actions are taken to protect the shore against the expansive sea. Silesia region is an area of vastly degraded natural environment, caused mostly by intensive exploitation and following it processing of natural resources (coal), industrial development, transportation and urban development. Air pollution, sanitation and industrial sewage, heavy metals soil pollution and other environmental issues cause increase in frequency of lungs and cancer diseases. People migrate from this area because of: air and water pollution; soil pollution (farming hardship); health issues.



**environmental migrants**

people who are forced to leave their home region due to sudden or long-term changes to their local environment



*ETwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c5c32201.pdf>

**Italy:**

In Italy, especially in the central part where we live, fortunately we do not have many environmental emergencies due to pollution while unfortunately every day our seas are the scene of tragedies that concern migrants, often forced to abandon their lands not only for strictly political or economic problems, but also by the difficulties, often caused by man, of an environmental nature unfortunately, however, environmental problems are not lacking and often have forced many people to abandon their homes too often accidents such as floods or landslides occur due to atmospheric events even if the greatest fault is usually the man who does not respect and does not care for the environment in which he lives. The earthquake is a terrible phenomenon that has repeatedly hit Umbria, our region, killing and leaving many people without a home, such as in the 1997 and 2014 the earthquake obviously is not strictly linked to human action, but it reminds us of the force that nature can have and the respect we must have for it. Citerna was partially destroyed by the earthquake in 1917, 100 years ago and many people have had to leave their homes. The children did a research on this topic and participated in a commemorative exhibition.





*ETwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c4b3e041.pdf>

### **Greece:**

The exact international definition for environmental migration is not agreed. Environmental migrants are people who are forced to move from one place to another due to environmental changes in their surroundings (IOM 2007).

Reasons for environmental migration - Climate change, rising sea level - By 2050 there will have been about 150.000.000 migrants. UN estimates 60 % of human movement is caused by environmental issues. Environmental disasters such as draught, famine, volcanic eruptions, earthquakes. Man-made catastrophes. Destruction of local resources during and after war. Pollution due to natural resource extraction (mining, oil). Agricultural exploitation. Effects of Environmental Migration - Migration causes economic, political, social and environmental effects and multinational issues such as: open-border policies, security issues, human trafficking/slavery and environmental disasters because of human activities. On the migrants, On the home country, On the host country.

Solutions - Environmental migration, like all migrations, is a global issue. Migration is a solution to climate change, not a threat to security. Address the causes of involuntary migration and create legal solutions to ease migration. Go back to the basics, to the historical positive view of migration and immigrants. Dispel stereotypes.





*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c3a49e81.pdf>

*18. Exchanging Christmas cards by post – 2017*







*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c8f0eb41.pdf>

19. *The first official pupils' video conference* - exchanging information regarding to the outcomes of local problems, discussion about environmental migrants:



*eTwinning outcome:*

<https://2zs.edupage.org/photos/?photo=album&gallery=660#photos:album:660>

20. *Special "Data analyses week"* - Math for analyses of meteorological data

**AIM:** Math for analyses meteorological data. Temperatures in special spring week in all countries – 9:00 and 12:00, from 19. – 23. March 2018,

**Purpose:**

Point to global changing temperature problem (Global warming). Pupils measure temperatures and process them into the tables. They compare data of the special week in 2018 to special week in historical horizon.

**Target group:** pupils

**Methods:**

1. Theoretical introduction to the problem.
2. Measurement of temperatures during special week.
3. Processing weather and temperature tables.
4. Comparing data of special week in 2018 to special week in historical horizon.
5. Discussion and connection.

**Solution: table**

**Spring measurements**

**Slovakia:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/cb11eb081.xlsx>

**Poland:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c4a62421.docx>

**Italy:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/ca10f6ec1.xlsx>

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/cc12df241.pdf>

**Greece:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c91002d01.xlsx>

**Summer and autumn measurements**

**Slovakia:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/bc109d937.pdf>

**Poland:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/ba106ca77.pdf>

**Italy:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/b8b2b987.xlsx>



**Greece:**

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/b7a377c7.xlsx>

**Winter measurements**

**Slovakia:**

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/b99b8707.xlsx>

**Poland:**

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c8121a777.pdf>

**Italy:**

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c1c49357.pdf>

**Greece:**

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c611e98b7.xlsx>





By comparing measurement data and historical measurements pupils in all countries noticed that the temperature is increasing. Subsequently, the teachers encouraged the pupils to discuss critically about global warming and its possible consequences

21. *The Second project meeting in Greece: presentation of the survey outcomes about local and global environmental problems, environmental migrants, results from special "data analyses week". Share DVD's with the outcomes. 05-06/2018. Leading: Greece*



*Outputs of meeting: <https://twinspace.etwinning.net/60967/pages/page/422982>*

22. *Create of Eco pedagogical place (community garden) with local plants and herbs... Making a short video of pupils working in the community garden.*

**AIM:** Creating of Eco pedagogical place (community garden) with local plants, trees and herbs. Making a short video of pupils working in the community garden to YouTube.

**Purpose:** Pupils create Eco pedagogical place – community garden, rock garden, herbs garden with local seeds of plants, herbs, flowers, bushes and trees. They make a short video of this activity (stop motion).

**Target group:** pupils

**Methods:**

1. Theoretical introduction to the problem.
2. Choosing the local plants, herbs, flowers, bushes and trees.
3. Team work in the community garden.
4. Make a short video and photos from this activity (stop motion).



5. Discussion and connection.

**Solution: photos and video**

**Slovakia:**



**Poland:**



[https://youtu.be/e\\_7CmjMoRok](https://youtu.be/e_7CmjMoRok),

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c6c4aba1.pdf>

**Italy:**



**Greece:**



<https://youtu.be/TsK1orH0nDk>

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c7d3ed61.pdf>

23. *Involvement of children* - English, Music, Art, ICT in writing tales, short stories, songs, drawing and painting pictures, making posters and PPT of the impact on environment to causes of their movement and to the social, economic and cultural impact

**AIM:** Involvement of children – English, Music, Art, ICT in writing tales, short stories, songs, drawing and painting pictures, making posters and PPT presentation of the impact on environment to causes of their movement and to the social, economic and cultural impact. Presentation – Earth Day – 21. – 23. 4. 2018.



**Purpose:**

Pupils create tales, short stories, posters, songs, draw and paint pictures and make PPT presentation of the impact on environment. They based on three parts of sustainable development (SD) – social (poverty, unemployment etc.), economic (industry, agriculture, tourism etc.), cultural (minority, religion, etc.), environmental (waste, motorways etc.)

**Target group:** pupils

**Methods:**

1. Theoretical introduction to the problem (SD).
2. Create tales, stories, songs...
3. Individual and team work
4. Exhibition of pupils work in school.
5. Discussion and connection to SD.

**Solution: photos and video**

**Slovakia:**

The pupils Art works: drawings, paintings, pictures, posters, stories, comics and poems were displayed on school boards at the main entrance of our building.



<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c8e32f21.pdf>



**Poland:**



<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c9f270e1.pdf>

**Italy:**



<https://youtu.be/QmADfd4JJtM>

**Greece:**



<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c3e7e811.pdf>



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24. *Historical beginning of impact on the environment in local area* - History in all partner countries.

**AIM:** History in all partner countries. Work with old maps and present maps, change of land.

**Purpose:** Pupils work with old and present maps. They look for changes comparing both maps of local area. They note down all findings of their research.

**Target group:** pupils

**Methods:**

1. Theoretical introduction to the problem.
2. Study of old maps.
3. Study of present maps.
4. Comparing of maps.
5. Outcomes of data comparing.
6. Discussion and connection to change of land.

**Solution: PPT**

**Slovakia:**

Based on the theoretical introduction of the country and its exploitation, pupils of the 8th year, observed historical maps of the 18th, 19th, 20th and present (21st century). They identified changes in the country and possible development trends in the defined territory of Levice. They observed the disappearing of arable land, fields, greenery and urban landscapes is increasing. In the discussion they said that this was due to the development of the town, the increasing importance of the town and the increasing number of inhabitants in Levice. In the second part, they analysed the possible development trends of Levice and agreed that arable land, fields and greenery will continue to disappear. There was a conflict whether the town will be connected with the surrounding villages or not. The pupils looked at the historical development of the town, where they studied and outlined the possible scenarios of their town's development.





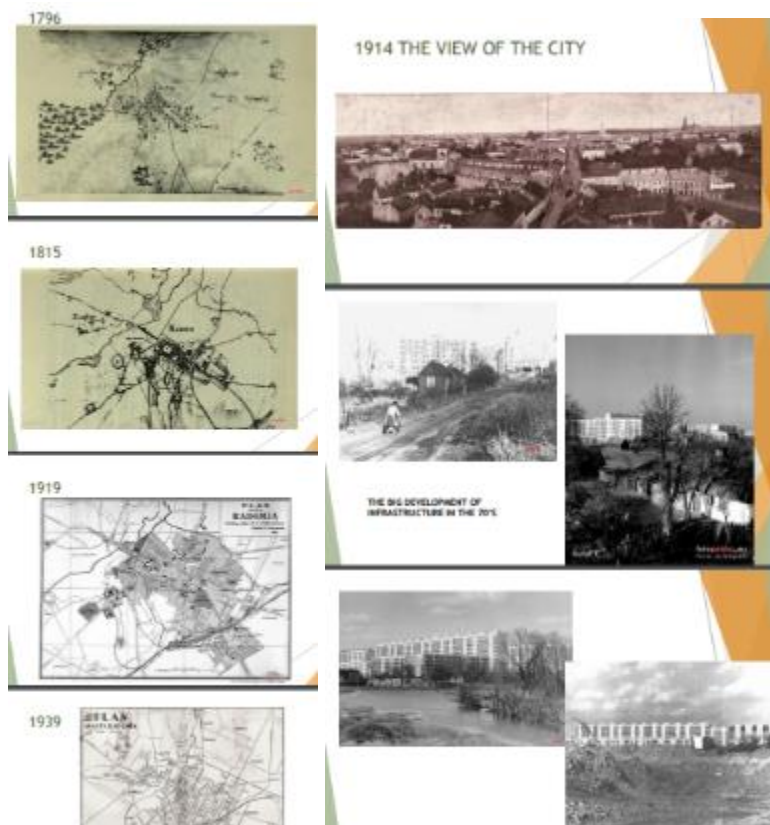
Historical and present maps of the town Levice



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c7124f311.pdf>

**Poland:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c6115b151.pdf>



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**Italy:**

Studying the environmental impact of urban development in our areas we asked the town surveyor for help. He told us about the development of our municipality, Citerna and we saw the development and transformation of our country Pistrino. He showed us maps and aerial photos of the last decades that have highlighted the progressive urbanization of the countryside we discussed the effects of urbanization.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c4f72dd1.pdf>

**Greece:**

Athens has changed greatly over the last sixty years. In the past, Athens was a more human city, in terms of natural beauty. There were more green, fewer cars and the construction was lower. Three rivers flowed through it, Ilissos, Iridanos and Kifissos. But as cars grew, the need for larger roads was created. So the rivers were laid and flowing underground. So we came to the present picture, a city with many streets and great construction.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c51066f91.pdf>



**Poland:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c09eaa11.xlsx>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c1adefd1.pdf>

**Italy:**



*eTwinning outcome:*

<https://youtu.be/lMePpZX3nCM>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c812678b1.xlsx>



**Greece:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/bf9d24f1.pdf>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c0ac66b1.pdf>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c1bba871.pdf>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c3da2ff1.xlsx>

*26. Email exchange during the summer holidays*

Teachers communicated electronically the upcoming project meeting, redistributed tasks and ongoing project review was in process (ongoing reports).

*27. Studying local areas with environmental degradation - Geography. Identifying the knock-on effect at all level. Creation of maps with the help of ICT and documentary studying.*

The activity was linked with the activity where the maps were already compiled "*From Local to Global Issues*". Pupils and teachers combined the environmental calendar with this activity and prepared special days to highlight environmental problems and local environmental degradation in their surroundings. Methodology was directed by each school individually.

**Slovakia:**

Teachers prepared Milk Day to highlight the local problems in agriculture (reduction of livestock production).







The second activity was European mobility and car free week, during this special week pupils used bicycles for transport around the town and in the town of Levice the public transport was free of charge. The third activity was European week of sport, highlighting the consumer lifestyle, reducing the quality of the environment and nature due to high dependence of people on natural resources. Pupils did some sport activities with an emphasis on a healthy lifestyle in harmony with nature, without creating local burdens and environmental degradation.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/bab46437.pdf>

**Poland:**

Pupils focused on the problem of biodiversity reduction (World animal day) and waste problems (Clean Up the World).



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/b8e846f7.pdf>

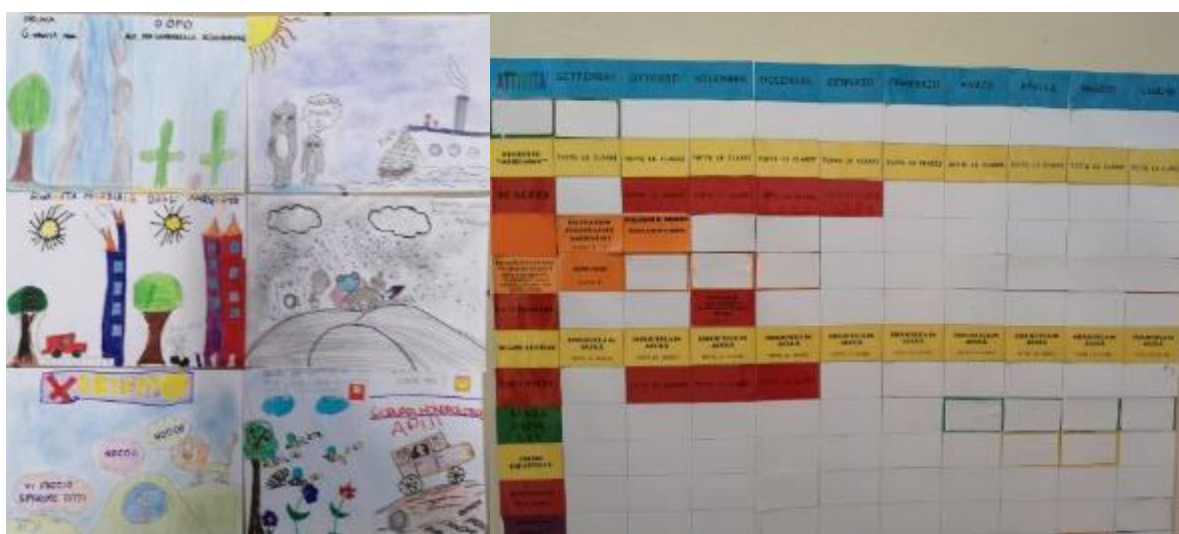
<https://youtu.be/HL59T54Uzyo>

[https://youtu.be/Yg1i\\_zQ-mqk](https://youtu.be/Yg1i_zQ-mqk)

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/bcefc087.pdf>

**Italy:**

Pupils held discussions about waste, biodiversity, sea pollution and so on.





**Greece:**

Pupils also made posters and discussed about animal and plant protection, biodiversity etc.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/be11c00a7.pdf>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/bbee3b67.pdf>

28. *The Third project meeting in Italy:* presentation of survey outcomes about historical beginning of the impact on environment, list of endangered plants and animals, Maps presentation about degradation occurring in a local area, short stories, posters, presentations, pictures and short videos from community garden made by pupils. Share DVD's with the outcomes. 09-10/2018. Leading: Italy





Outputs of meeting: <https://twinspace.etwinning.net/60967/pages/page/586573>

29. *Exchanging environmental Christmas cards and gifts by post - 2018* (recycling materials)  
Pupils again exchanged postcards using recycled materials and displayed them at project corners.

*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/bde64aa7.pdf>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c1b6d737.pdf>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c511d1317.pdf>

30. *The Fourth project meeting in Poland:* presentation of each country outcomes of annual project's work - qualitative and quantitative evaluation. Evaluation of calendar with special environmental days, exchanging of photos. Activity C1 in Poland - training in Poland with pupils. 02-03/2018. Leading: Poland.



Outputs of meeting, C activity: <https://twinspace.etwinning.net/60967/pages/page/586574>



According to the approved project, 14 pupils from Slovakia continued in environmental education at a primary school in Radom, Poland.

31. *Environmental trips and excursions* for pupils in each country. Excursions reflection

**AIM:** Environmental trips of pupils

**Purpose:** Pupils go on environmental trips to interesting places (parks, gardens, farms, power plants, dumps etc.). They take photos and record short videos.

**Target group:** pupils

**Solution:** photos and videos

**Slovakia:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/baf911d7.pdf>

**Poland:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/b29a7497.pdf>



**Italy:**



*eTwinning outcome:*

[https://youtu.be/6t0D\\_320VYw](https://youtu.be/6t0D_320VYw)

**Greece:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/baecb5c7.pdf>

*32. Stories, chats with environmental specialists*

**AIM:** To arrange a discussion with environmental specialist, for example – waste manager, protector of nature, ecologist...

**Target group:** pupils

**Solution:** photos and videos, summary of discussion with env specialist





**Slovakia:**

Discussion with waste specialists



Lecture about air quality



Discussions with beekeepers



Forest Pedagogy



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c011413e7.pdf>

**Poland:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/bbc7c727.pdf>



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**Italy:**



*eTwinning outcome:* <https://youtu.be/XM9oZEYpygE>

**Greece:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c612c54d7.pdf>

33. *The second official pupils' video conference* exchanging information: outcomes of excursions and environmental trips, stories, chats with environmental specialists. Pupils from all project countries discussed the outcomes of previous activities and sang the selected song together again.







34. *Search for black dumps in local area.* Using „TrashOut“ application (<https://www.trashout.ngo>). Inform municipality about illegal dumps through the mobile application.

**AIM:** To have discussions with pupils about waste problems, support separation and recycling of waste, eliminate black dumps in local conditions.

**Activity suggestions:**

1. Have an introductory lecture on waste, its disposal and handling, also about legislation at national and European level
2. Process of individual types of waste, make e.g. presentations and recycling possibilities . (e.g. Plastics, PET bottles and their use after recycling in the textile industry) etc.
3. Talk about disposal options – dumps, burning of waste, recycling and compost.
4. Visit sewage treatment plant, waste dump, separation line or recycling company to make output about it.
5. Present findings, discuss about waste.
6. Do a reseach about school ( separation in school) about town, ( possibilities of separation in the town where aj live in), in the state.
7. Look for black dumps ( for example, take photos of them) in my area.

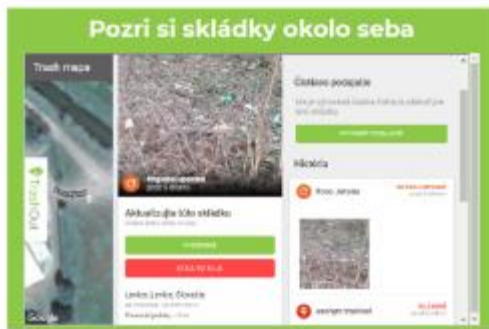


**Slovakia:**

**Recycling waste at our school! Reusing of waste materials**



Support projects:  
<https://zzs.edupage.org/a/recyklohy>  
<https://zzs.edupage.org/a/ekoalarm-2017-2018>



**Cleaning our town from waste and black dumps**



- We cleaned M. R. Štefánik park in the centre of Levice
- Levice Calvary
- School surrounding

Support projects - Earth Day, Initiative DM together and others.

<https://zzs.edupage.org/a/levice-dm>  
<https://zzs.edupage.org/a/levice-dm-2018>  
<https://zzs.edupage.org/a/levice-dm-2019>  
<https://zzs.edupage.org/a/levice-dm-2020>

*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/bee7d3c7.pdf>

**Poland:**

**Map of black dumps**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/b89a01e7.pdf>



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**Italy:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c2d3d517.pdf>

**Greece:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/bfb3c877.pdf>

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c41001537.pdf>

<https://youtu.be/UE3GN-J6hUk>

35. *Using energy in each country*, questionnaire: use of energy at home, school and in each country.

**AIM:** Discussion with pupils about the types of energy, their usage in participating schools and countries, questionnaire (discussions about usage of energy, green energy and energy saving).

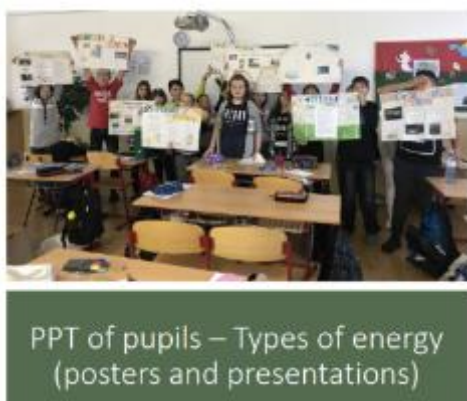


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**Activity suggestions:**

1. Have an introductory lecture about different types of energy - arises from the transformation of natural resources, discussion of intractable and inexhaustible natural resources.
2. Traditional energy sources - oil, natural gas, coal - polluting environment (air - greenhouse effect, global warming, etc.)
3. Alternative energy sources - water, wind, solar, geothermal, biomass (with its impact), atomic, other sources of alternative energy.
4. Creating projects and discussions with pupils about energy. Information and questionnaire about the use of energy in the country and partners involved. Saving energy - the best energy is one that is never produced and inexhaustible
5. Presenting findings, discussing about energy.

**Slovakia:**



**What more could we do at school to save energy?**

*Matej Havran, Simon Drenka (VI. class)*

- Green roof with natural lighting.
- Solar panels - water heating for gym and kitchen, power generation.
- Thermal insulation of building - polystyrene / glass wool / thermoregulation coating = reduction of heat leakage.
- Rainwater Capture = Reduction of Water Resources Requirements, e.g. for watering.
- Charging station for electric cars / hybrids



Sources: [www.zuzulm.com.net](http://www.zuzulm.com.net), [www.nyn.com.sk](http://www.nyn.com.sk), [www.ecofixry.sk](http://www.ecofixry.sk), [www.kyvalis.arad.ro](http://www.kyvalis.arad.ro), [www.ecoprints.sk](http://www.ecoprints.sk), [www.europaport.sk](http://www.europaport.sk), [www.lo3energy.com](http://www.lo3energy.com), [www.amllytne.com](http://www.amllytne.com)



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c1107dce7.pdf>

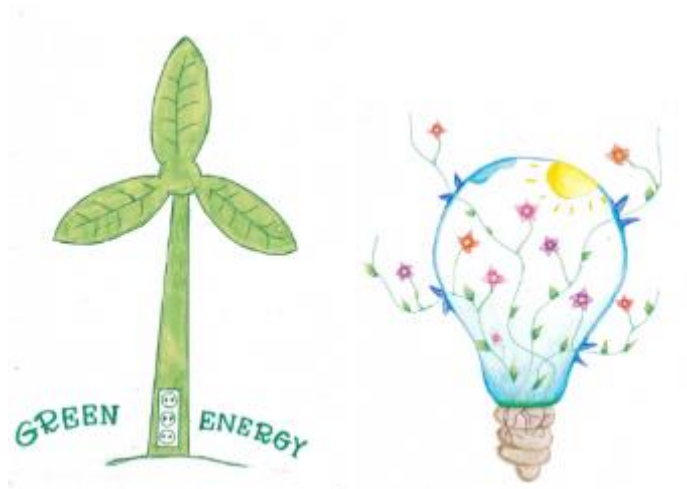
<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/bbac4e67.pdf>



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**Poland:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c812f6397.pdf>

**Italy:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c0b55197.pdf>



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**Greece:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c2e191b7.pdf>

<https://youtu.be/Fn6eDrUJaU4>

36. *pH analyses*. Chemical analyses of water sources and soil in local area.

**AIM:** pH analysing of water and soil from local school environment, cross curricular connections with chemistry.

**Activity suggestions:**

1. Have an introductory lecture - pH as an indicator of environmental condition
2. Using of chemistry kit, pH meter to measure pH meter for measuring ph of water and soils from extract.
3. Measurement with pupils, estimated and real measured results, comparing of tables with results, comparing of measurements with pH digital meter and pH paper indicators.
4. Presentation of findings, discussion about water and soil pollution.





**Slovakia:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c31266067.pdf>

**Poland:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c3e316d7.pdf>



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**Italy:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c0b55197.pdf>

**Greece:**



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c0c30a37.pdf>

37. Pupils sum up results of env project research in each country, prepare „*Science and Art papers*“, that are outcomes of the project.

**Activity suggestions:**

1. Through art work pupils create their outputs on posters and presentations focusing on science.
2. The teacher and pupils hold discussion about presented problems
3. Pupils present and discuss their findings and art work.
4. They launch the exhibition of their project work in programme Cloud.



Various topics – Various outcomes „Science and Art“



*eTwinning outcome:*

**Slovakia:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/bcadd787.pdf>

**Poland:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c4f25897.pdf>

**Italy:**

<https://prezi.com/view/U2GDYJL9pOeRb2g2Lx6G/>

**Greece:**

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c1d24ff7.pdf>

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c3fe8f97.pdf>

<https://twinspace.etwinning.net/files/collabspace/7/67/967/60967/files/c410dd157.pdf>

38. *Final partners meeting in Slovakia*, preparing of *The Atlas* (illustrated by children, information about local environmental problems and environmental migrants, maps, photos, case study...), Activity C2 - training course to Slovakia with pupils. 05-06/2018.  
Leading: SK





The last project meeting took place in Levice. Part of this meeting was an educational activity “C” for pupils from Poland, who visited Energoland at the Mochovce Nuclear Power Plant in the form of environmental excursions, where they had discussions led by natural resources and green energy experts. Two-day tour through the Tatras and dealing with environmental degradation - biodiversity loss, forest drying, calamity was also an important part of the program. In addition, they viewed national parks and territories registered in UNESCO.

*39. The second ecofootprint of pupils in all participating countries evaluated at the end of project*

The ecological footprint is a quantifiable indicator of human impact on the environment and it is part of the sustainable development agenda. Pupils in all countries, using an internet calculator published by the Slovak Environment Agency (<http://www.ekostopa.sk/>), measured their footprint twice at the beginning of the project and after two years of working on the project. The ecological footprint is evaluated in a separate chapter.

*40. Knowledge test- the level of knowledge gained through project.*



The second measurable indicator was a knowledge test that focused on all topics in a cross-curricular manner. Using online tools-

([https://docs.google.com/forms/d/1CDBbPWzyI7ohbXO98VJMVwJ9Fnlg1azO4ksuMQ\\_QbfY/edit#responses](https://docs.google.com/forms/d/1CDBbPWzyI7ohbXO98VJMVwJ9Fnlg1azO4ksuMQ_QbfY/edit#responses)). Pupils verified their knowledge. It is also evaluated in a separate chapter.

#### 41. *Evaluation of the project, sociometry.*

An important part of the projects is evaluation. To evaluate project activities, we used an online questionnaire for project teams and school head teachers.

*Project Team Questionnaire:*

[https://docs.google.com/forms/d/1CDBbPWzyI7ohbXO98VJMVwJ9Fnlg1azO4ksuMQ\\_QbfY/edit#responses](https://docs.google.com/forms/d/1CDBbPWzyI7ohbXO98VJMVwJ9Fnlg1azO4ksuMQ_QbfY/edit#responses)

*Questionnaire for school head teachers.*

[https://docs.google.com/forms/d/1gxPILL4BPv0HDwpe1Dp1gkkv0VNkbqMjMHR\\_fOKWE5g/edit?usp=forms\\_home](https://docs.google.com/forms/d/1gxPILL4BPv0HDwpe1Dp1gkkv0VNkbqMjMHR_fOKWE5g/edit?usp=forms_home)

#### **Project teams from Poland, Slovakia, Greece and Italy wrote:**

*The participation in the project "Think globally, act locally!" was a great experience as well as for us-the teachers, as for our students. Within two years we realised many activities, which were very valuable for us. At first, we have developed our knowledge about the impact of environmental changes on human life. Awareness of this influence will certainly result in permanent changes in the behaviour and treatment of the environment by all participants. Project activities included content of many school subjects and developed the abilities and interests of students. What is more, we have developed our skills in the use of ICT and English language competences to collect data and present our achievements. An important advantage of the project was the integration of teachers' team and students from various classes. Developing their planning and organisational skills and ability to work in a team. Our activities also included pupils' parents, other schools and the local society, which significantly influenced the scope and impact of the project. Added value is a friendship between partner schools, long-term relationships, cultural exchange and presentation of good practices used in education in*





*partner countries. We strongly hope for joint activities in the future, because we all see their great impact on the students' competences, school staff and the prestige of the school in the local environment. Thanks to participation in the Project my knowledge concerning environmental issues has increased. I have learnt a lot about green energy and development in this area as well as problems that participating countries still have had with the change of the approach to renewable energy implementation. I have also improved my ecological way of thinking about everyday decisions that can change the world and make it a better place. As a result, I could share my knowledge and approach with students along with their parents, my colleagues, friends and family. The project enhanced my interest concerning particularly green energy which has always been important to me. It has also triggered the research I have made about world's newest achievements in this area as well as technical solutions and existing wind and solar devices for a household usage. We have evaluated activities mainly by feedback given from students and their parents after conducting each activity. We have also compared our experience with other teachers' views and discussed conclusions. We conducted a survey among students taking part in the project. It covered the subject of changes the students observed in their attitude towards environment and their everyday decisions as well as the possible influence on the global change. Moreover, the project's evaluation included the display of students' work e.g. presentations, posters, meetings with environmental specialists. Additionally, the whole school constantly witnessed everyday changes that have occurred in school garden. Beginning from building the site, sowing seeds and planting vegetables, through watching how they grow become ripe and ready to pick, to the moment of nature's winter nap. The possibility of seeing the nature making seasonal changes was an enormously important experience for children attending our school.*

#### *42. Summer holidays – finish with the project*

After evaluating all the activities and feedback, it is important to economically close the project and put all the collected information in the final report. Also at the end, the project teams communicated intensively with the use of ICT and the mobility tool.





## **Eco-footprint and knowledge test as measurable outputs of project goals**

Ecological footprint is a method measuring the impact of human activities on planet Earth. This influence is expressed through the Earth's surface area needed for our daily activities and consumerist lifestyle. At the same time, it figures out whether our needs are fair towards other inhabitants on Earth and in accordance with its biological capacity.

Ecological Footprint can be calculated by an individual, school, organization, city, or country. It represents the total amount of land necessary to provide everything we consume (energy, water, food, clothing, materials) but also for the disposal of created waste. The larger the footprint, the greater the impact on nature. Thanks to international trade our footprint often affects territories strewn all over the world.

The calculation is based on three simple principles:

- We are able to estimate the quantity of natural resources we consume and the amount of waste we produce;
- Most of these resources and waste can be converted into the amount of corresponding biologically productive area of the Earth (arable land, pastures, forests, water surface and built-up areas);
- One hectare of biologically productive area of the Earth refers to a global hectare (gha); one hectare is about the size of a football field.

It is very simple Mathematics

We have only one planet! Only one ecological account that represents an area of 51 billion hectares. However, a significant proportion of the Earth's surface is not available to humans. This area is covered with the World Ocean, deserts, rocks or ice.

Surface area of the Earth ... 51 bn ha

Unavailable area (surface) ... 39.1 bn ha

Productive area (surface) ... 11.9 gha

Population of the Earth ... 6.7 bn

Fair proportion of the Earth's surface per person  $[11.9/6.7] = 1.8$  gha

Average eco-footprint per person on Earth ... 2.7 gha

Difference  $1.8 - 2.7 = -0.9$  gha



There are only 11.9 billion disposable global hectares of biologically productive area. This area provides all natural resources and services we need. It can be classified into 6 categories according to people's usage:

- cropland is used for growing crops, which are needed for making food, textile manufacturing, production of rubber, vegetable oils, but also fodder for cattle;
- grazing land provides space for stock-raising, which is used to produce meat, as well as dairy, leather and wool products;
- forest for timber and fuelwood produce lumber, which we use for the production of building materials, paper, wood products and fuels;
- fishing ground are used for breeding and rearing of fish in coastal areas, as well as in lakes and ponds;
- built-up land consists of roads, parking lots, houses, stores, industrial buildings and all areas covered with concrete;
- forest for carbon dioxide uptake eliminate gaseous waste, particularly carbon dioxide (CO<sub>2</sub>), that we release into the atmosphere by fossil fuel combustion for the transportation of passengers, food and goods and for the production of electric power and heating.

The current world population is approximately 6.7 billion. The fair share of the biologically productive space for each human being is 1,8 global hectares. However, the current average ecological footprint of person reaches 2,7 global hectares. That means that the Earth's bio capacity is exceeded by approximately 50% and the current consumption level of humankind requires an area equal not to one but 1.5 planets. We deplete natural resources and services faster than they can recover. We are reaching the end of resources and interfere with the regenerative capacities of the Earth. This can go on temporarily, but not forever!

WATCH OUT! Natural resources are not distributed evenly. Some countries consume more natural resources than is available for them. They outpace their own capacities and deplete other nations' resources. If every person in the world lived like an average US citizen, mankind would need nearly 4.5 planets. On the contrary, if we lived like an average Zambian citizen, only half of the planet would suffice.

Source: <http://www.ekostopa.sk/what-is-an-ecological-footprint> (2010).

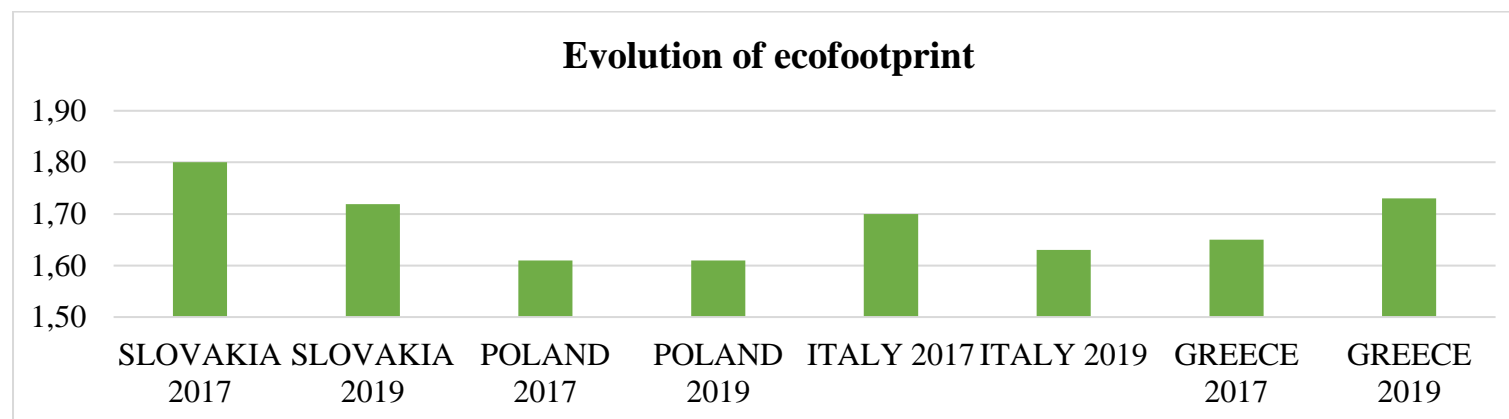


**Table with results:**

Country/information	SLOVAKIA 2017	SLOVAKIA 2019	POLAND 2017	POLAND 2019	ITALY 2017	ITALY 2019	GREECE 2017	GREECE 2019
Summary of pupils	115	107	65	101	91	100	100	100
Average age	11,6	12	13,53	14,1	13,7	15,3	10	11,25
Average global hectares	3,78	3,61	3,38	3,38	3,51	3,39	3,41	3,58
Average of planets	1,80	1,72	1,61	1,61	1,7	1,63	1,65	1,73

The table shows the number of tested pupils, their average age, the average of global hectares and the average number of planets per study group. The data is also graphically stated in the graph where the development and changes in the ecological track can be monitored as a measurable output within the framework of sustainable development

**Graph of results:**



Source: Countries data by years and measurements.



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In the table and graph we can follow the development of ecological footprints of pupils in participating schools. In Slovakia, the ecological footprint of pupils has decreased. The number of planets that pupils need dropped from 1.80 to 1.72 planets. At Polish School, the number of planets stayed unchangeable. In Italy, the ecological footprint also fell from 1.70 to 1.63 planets. In Greece, the average ecological footprint increased slightly from 1.65 to 1.73. The group of tested pupils was approximately the same.



*eTwinning outcome:*

<https://twinspace.etwinning.net/files/collabspac/7/67/967/60967/files/c1cac521.pdf>

In addition to their approach, we also checked the level of knowledge gained from environmental activities by the on-line testing test developed by teachers from participating countries.

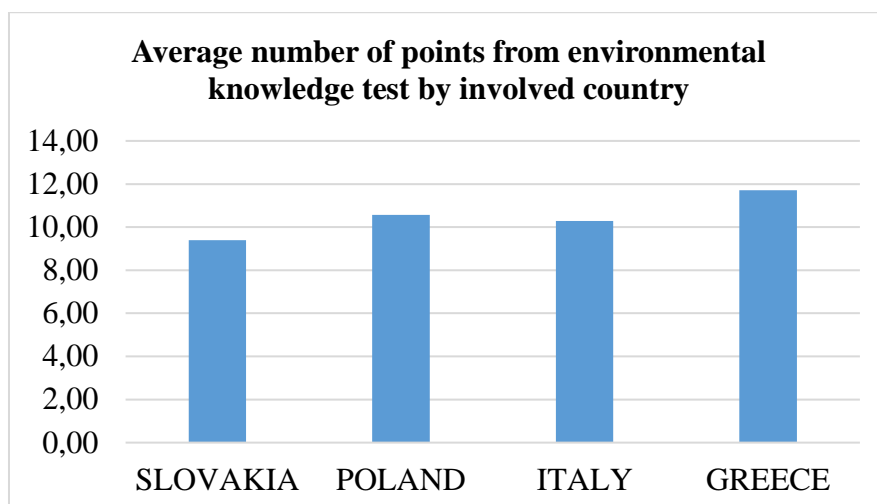
**Table:**

Country/information	SLOVAKIA	POLAND	ITALY	GREECE
Summary of pupils	107	101	100	100
Average age	12	14,1	15,3	11,25
Average points	9,40	10,57	10,29	11,71



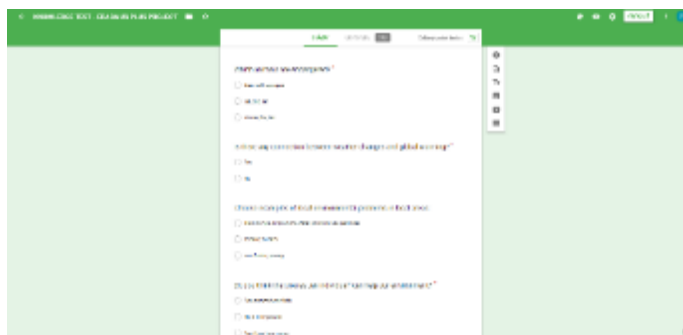
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**Graph:**



Source: Country data according to measurements in online testing

Pupils were asked 12 closed questions in the test based on previously solved environmental activities. Slovak pupils received an average of 9.4 points, Polish 10.57, Italian 10.29 and Greek pupils the most, 11.71 points. The maximum number of points that could be received was 12, the minimum score was 0. In each country they also earned a maximum score. The minimum number was not obtained in any of the countries.



Two measurable outputs are a sufficient quantifiable output of the project, where improvements in environmental impact can be monitored through ecological footprint, besides a slight reduction in Greece and equality in Poland. However, during running the project some pupils have changed schools due to frequent fluctuation from primary to secondary schools and different school systems of the countries. As part of the environmental knowledge test, countries have reached an average of 10.49 points, which is approximately 87.41% of all pupils involved.



## **Project feedback from our Head teachers**

*An integral part of the educational process of the 21st century is participation of educational institutions in international projects that extend participants' knowledge and skills and remove the differences between nations and individuals. Even us, like many other schools in Slovakia and Europe, during two years, participated in the international project team involving the teachers and pupils from Italy, Poland and Greece.*

*As Erasmus + project coordinators, Think Globally Act Locally!" We tried to fill the basic idea of the project and to focus our and participants' attention on the most important area of our life, which is environmental protection. Through creative and original project activities, involved primary teachers and pupils have learnt the importance of nature protection at regional level. They have gained some knowledge about sights and natural beauties of each country.*

*Perhaps only when they visited The Acropolis of Athens and the Tatra mountains they realized that we are an integral part of nature and our duty, as teachers and parents, is to remind the young generation constantly about the need of proper environmental behaviour and protection of the living and inanimate nature.*

*We believe that, we have reached an international level of pupils, parents and teachers 'community through our project activities. We made small but important steps by which we have contributed to environmental protection - Think globally, act locally - save, separate, recycle and protect our environment. The future generations will have to take the consequences of our good and bad decisions.*

*PaedDr. Marta Botková,*

*Head teacher of coordinating Primary school*

*Základná škola, Ul. sv. Michala 42, Levice, Slovakia*

*It is with great pleasure that I am writing this introduction to the Environmental Education Atlas compounding the whole experience of our schools related to the four countries partnership project "Think globally, act locally". During the last two years, teachers and pupils of Slovakia, Poland, Greece and Italy have been cooperating in fruitful activities regarding the connections and relationship between local versus global phenomena concerning the survival*



*of human beings and animals on our Planet. I reckon that the main goal reached by this project is the rise of awareness among our students about the consequences that each single act can cause on a broader scale since in our interwoven world single behaviours can no longer be considered isolated: we live in a "Global village". Children had the opportunity to exchange data and news about temperature, family life styles, animal extinction, international migrations and other items. We hope that this creation will help them to reflect on future policies about preservation of our common Earth. Through this project we have strengthened the friendship among our four European countries, each one part of the same Union. Our cultural exchange has mainly favoured the knowledge of our school systems and heritage, we have been learning from each other's differences. For this great opportunity I heartily thank my head teachers' partners and especially the Slovak staff who led the project.*

*Mrs Raffaella Reali, Head teacher  
Istituto Comprensivo "Leonardo da Vinci"- San Giustino (Perugia) Italy*

*This two-year project which now comes to an end has promoted citizenship, active and collaborative learning, and environmental education. The whole school has benefited from the process since an eco-group was set up with the aim of promoting environmental issues and suggesting solutions for our school and local community. Some of the ideas that we have discussed and decided to implement as part of the project are outlined below. One of the things that we are particularly proud of was the building of a hydroponic garden in the premises of our school where all classes have the chance to grow their own vegetables. We have replaced all the light bulbs we have at school with energy efficient ones and the pupils are responsible for turning them off when not needed. Clean-up campaigns have been organized in order to celebrate environmental days and the whole school participates in various recycling schemes. The project has empowered our pupils to disseminate the knowledge they have gained to their parents, classmates and neighbouring schools. They feel confident enough to speak about the need to protect the environment locally and globally, about energy saving and climate change. Finally, the pupils have decided to have car free days and get to school on foot, or carpool if they live far away from the school. The end purpose is to reduce the ecological footprint of our school and become sensitive to environmental issues.*

*George Kappis, Head teacher  
2 DIMOTIKO SHOLEIO ZOGRAFOU, Athens, Greece*



*The main goal of the project "Think globally, act locally!" was to show the impact of environmental damage caused by natural or man-made reasons for human existence and its consequences for the quality of life. The project included a lot of activities, in which many teachers as well as students of our school were involved. The great value of these activities was their interdisciplinarity, because they combined issues from different school subjects. The project activities concerning environmental protection involved students talented in the science, the Art as well as natural science. For pupils and teachers, the project gave the excellent opportunity to exchange experiences, develop language competences, learn about culture in partner countries and feel the citizens of Europe. The program has strengthened the conviction of how valuable it is to establish international cooperation with other schools in Europe, to increase knowledge and competences among students and teachers, as well as the prestige of the school in the local environment. I strongly encourage Headteachers to undertake such valuable activities by their teachers and students with a huge benefit to their schools.*

*Marek Lipiec, Head teacher*

*Publiczna Szkoła Podstawowa nr 17 im. Przyjaciół Dzieci w Radomiu, Poland*



## **Conclusion and summary of the project**

The project “Think globally, Act locally!” was based on current global environmental problems and the long-term intention of participating schools to implement modern environmental education in the primary school education process.

At the same time, it followed up on the previous Erasmus + coordinating school project, which aimed to implement the CLIL method in teaching Science and educational subjects, with an emphasis on improving the level of language competence not only for pupils but also for teachers. For a better exchange of experience, the project activities also involved five transnational project meetings in each participating country and two educational activities for pupils abroad.

International cooperation, existing knowledge of global environmental issues and the CLIL method helped to reach the project goals successfully. Through this project we wanted to point out to one of the key problems of our planet, which touches each of us, because we humans are part of it.

The basis for the successful implementation of the project was an excellent team of teachers and an open approach of school headteachers from four European countries, Slovakia, Poland, Italy and Greece, who worked closely together to create various methods and forms of project activities, overcoming problems and helping each other. All these things mentioned above helped mainly pupils in participating schools and local communities to feel involved and informed.

We believe that the output of the project summarized in the Atlas of Environmental Education with more than 40 activities, methodological description and demonstrations of real outputs of participating schools will help other organizations to actively influence humanity's environmental awareness. The fulfillment proof of the main goals of our project “Think globally, Act locally!” is reduced ecological footprint of pupils, teachers and high level of environmental knowledge.

If the school and its teachers decide to engage in environmental education, they must be firmly convinced that they are acting properly and in the interests of our planet.

Environmental education is a specific subject, no one should be forced to accept it, however everyone should decide for themselves and penetrate into environmental and "green" thinking, which leads them to a different approach to natural resources, energy, waste generation and



processing, as well as nature itself. It reduces their ecological footprint and gains new knowledge of more environmentally friendly approaches to our planet Earth.





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