



Guide and practical tools

Best practices of implementation Service-Learning for Active Citizens plastic challenges



Intellectual Output 5

This document will represent the result of the Intellectual Output number 5 in the ERASMUS+ Project n°: 2020-1-SI01-KA201-075895 „Innovative learning methodologies in schools for strengthening the awareness and active citizenship about plastics consumption - ReLearn Plastics“.

This work has been coordinated IES CID Campeador Spain and was done together in collaboration with all the other partners of ReLearn Plastics: University of Maribor, BC Naklo, OKOSP, Asociacio Cultural CRESOL, E-gimnazija, CSI Centre for Social Innovation LTD and P.G.M.S. (Private Grammar & Modern School).

The objective of this IO5 is focused on students. The aim is for students can increase their active commitment to plastics challenges and, at the same time, increase key competencies using Service-Learning activities.

This guide analyzes the implementation experiences in four countries, explaining in detail the project, the implementation, the results, and the conclusions.

Project partners:



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Introduction

Guide: Best practices of implementation Service-Learning for Active Citizens plastic challenges.

Culture, art, and expression are powerful tools for sustainability and education. Doing art is essential, and it starts with children's first motor skills. Art encourages us to look at things from different points of view, empathize with others and allow us to express ourselves in our way. Even at the beginning of our schooling, each of us worked on an art project. It was an expression of ourselves, something we created ourselves. The first school trips, learning in nature, visits to museums and theaters, national parks, recitations, and drawings, represent experiences that shaped our identity and made us who we are now.

Thanks to artistic and cultural education, students of all ages are encouraged to express their views, but also solutions to various challenges, starting from climate change and environmental degradation to sociological ones, such as poverty and inequality.


The enthusiasm and creativity of teachers are extremely important so there are numerous examples of good practice, where students get to know current topics and problems differently and creatively.

And how does it look in practice...

In Brazil, students at The Colégio Santa Chiara Elementary School, Aracaju, learned about the sustainability of rivers and waterways and the importance of water. The problem in this part of Brazil is the sewage drains, which are often used as garbage cans. After realizing the importance of the problem, the students showed the importance of water ecosystems with their illustrations and especially drew attention to sewage drains.

Students of the Busleiden Atheneum Pitzemburg, UNESCO ASPnet in Belgium, through a one-year project, learned about mining in the Democratic Republic of Congo, where tens of thousands of people, including children, work in life-threatening conditions. The result of this project was an installation in the form of a map of the Democratic Republic of the Congo made of a series of glazed cobalt tiles.

In the moving project, the representatives from the World Organization for Early Childhood Education in Ukraine showcase the children of Ukraine singing and drawing about peace.



The Key Futures program was launched in 2022, with the aim of positioning the cultural sector as a leader in the fight for a sustainable future. One example of empowering a marginalized community through ESD comes from the Museo Moderno in Buenos Aires, Argentina. The local homeless population was enabled to exhibit and sell their artwork, representing a unique, inclusive engagement with traditionally excluded communities.

There are plenty of examples, however, it should be emphasized that even in countries with traditional teaching, creative learning is slowly entering.

This guide presents the creativity of teachers and children from Spain, Cyprus, Slovenia, and Serbia, who pointed out the global plastic problem.

Intellectual output 5 has 3 parts:

- a) Preparation (The project needs and the service implemented; How the process of needs validation with schools, local entities and public institutions has been; How the participatory process of the service definition has been).
- b) Implementation (This module will describe in detail the action carried out by the participants. It will include pictures and comments by participants).
- c) Testimonials (This module will contain an analysis of the implementation, describing the main results and conclusions. Some quantitative indicators will be collected, and testimonials will explain their experience as qualitative indicators as well).

They will be presented for each school in separate chapter.

1 E-gimnazija Serbia

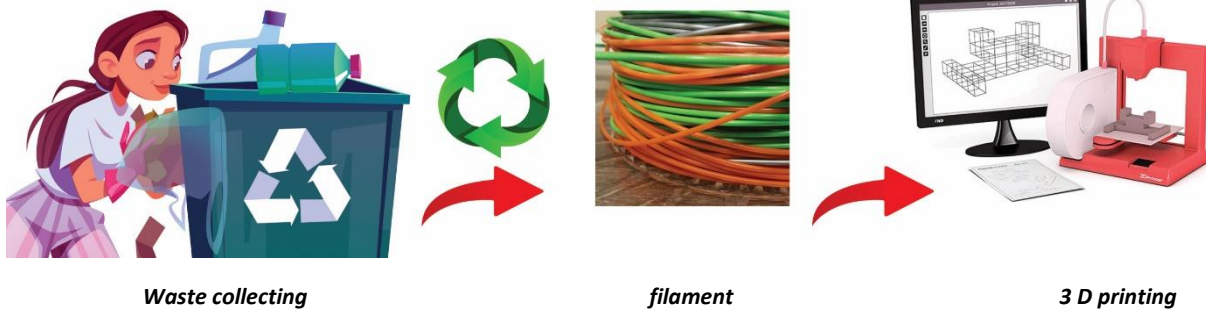
1.1 Introduction

The grammar school 'E-gimnazija', its pupils, teachers, staff and school guests collected PET packaging, as the most common packaging waste. The members of the school community, participating in the recycling process, raise their awareness of the importance of reusing plastic materials and the negative consequences for the environment due to the disposal of this waste in landfills, and indirectly they can influence the development of awareness of the importance of recycling among members of their families, friends, colleagues and neighbors.

Raising awareness about recycling

In addition to aesthetic pollution, plastic is dangerous to health. About three-quarters of the produced plastic are soon thrown away. About 80 percent of discarded plastic ends up in the environment and in landfills. The direct consequences for the common man, it is estimated, will only be felt because, if the way in which plastic is used does not change, by the year 2050 there will be more plastic in the oceans than fish. Used plastic is also worthless because it is cheaper for the manufacturer to produce a new one than to recycle the used one. About 50 percent of PET, the plastic that makes bottles suitable for recycling, is collected in recycling centers around the world, but only 7% is recycled while the rest stays there forever.

It is important to draw attention, educate, do some activity and develop the culture and awareness of removing plastic from our daily lives and needs. By recycling plastic waste for the purpose of producing filament/filling for the needs of 3D printing, combining ecology and 3D technology can be interesting and educational for young people. It is close to their understanding of technology and participation in the real solution of the problem with waste plastic. The field of 3D printing and its applications is developing every day, and our activity illustrates how from collecting waste you can get something more beautiful and practical.



Picture 1. From Waste collecting to 3D printing

a) What is the social need attended to?

There is the need for society to approach the problem of plastic packaging in a more active way, as well as its collection and recycling. In the issue of plastic packaging, in addition to consumer awareness, it is important to emphasize that a major role in the development of recycling is played by institutional frameworks (institutions), that means the policy of regulation and incentives in the waste management sector.

Apart from the excessive use of plastic packaging in Serbia, an even bigger problem is the inadequate and uncontrolled disposal of waste, which creates serious environmental consequences, especially for watercourses.

b) What is the service that the students have to carry out?

- Pupils collect plastic waste and store it at designated points.
- Pupils make waste collection points/boxes.
- They become familiar with the computer program (Cura Slicing) for 3D printing.
- Pupils participate in printing 3D models.

c) What are the learnings achieved with this service?

1. The use of new approaches to education and modern technology
2. Encouraging independence in learning
3. Commitment for the availability and democratization of knowledge
4. Creating a creative space for realizing the full potential of individuals

1.2 The partnerships

The partner faculty (FTN Faculty of Technical Sciences / Department of Production Engineering) where the pupils are introduced to more advanced activities in the technique and technology of 3D modelling and printing.

The Secondary School of Mechanical Engineering, in Novi Sad, getting familiar with the work of their peers in the field of 3D printing.

Our secondary school 'E-gimnazija' is placed in a joint building with the Secondary Vocational Traffic School and the Children's Cultural Centre, which participated in the collection of waste with us during our action. They are familiar with the action and realization of printed models.

a) A written agreement with the educational center and the social entity;

On 11th October 2022, a presentation was held, where a group of people gathered, school employees, teachers, administration and staff who helped pupils and teachers with the work on plastic. Also, biology and health and sports teachers talked to pupils about the topic through their subjects and worked to spread the awareness about the plastic issues.



Picture 2. TV presentation

The participants were teachers and employees of lots of primary and secondary schools from Novi Sad and nearby areas. They were our guests in the premises of our 'E-gimnazija' grammar school. There were 22 participants.


After the video presentation, where the participants were introduced to the problem of plastic, its harmfulness after use, the big problem of disposal and collection and its possible recycling, there was a part of the meeting where we exchanged experiences and future plans of what and how to raise the awareness of pupils and school staff on ecology.



Picture 3. Event 1



Picture 4. Event 1



They showed interest in the topic, the implementation of recycling and curriculum and application in school subjects were discussed. Also, we heard from them what they did in the past with cleaning actions and waste collection and how it turned out among the pupils in their schools. We got acquainted with their practical experiences.

There is innovative learning and development, both of teachers and pupils, through the application of alternative and modern methods of education and thereby indirectly influencing the qualitative development of the educational system.

A special part of the meeting was creative, educational, and, in the spirit of the age, creating activities for pupils. Raising awareness about ecology and its application in the school area (waste collection, waste separation, using waste in creative work, etc.) We believe that education creates the potential for a more beautiful and better world. Education that does not delay life but empowers us for it. This is possible only if the attitude toward learning changes and creates a relationship between all participants in the educational process that is based on trust, responsibility and mutual respect. In the modern age, the development of creative thinking is best achieved with a multidisciplinary approach.

By applying multidisciplinary learning by combining different types of art, then by using an interactive approach combining art and technology, pupils have the opportunity to release their creativity, learn principles, acquire new skills and create interesting works as an expression of their inspiration.

During artistic education, pupils develop much broader features:

- the ability to think creatively;
- out of the box problem solving;
- confidence;
- communication;
- concern for others and the environment;

A child is an unrepeatable work of art, so should be his/her education.

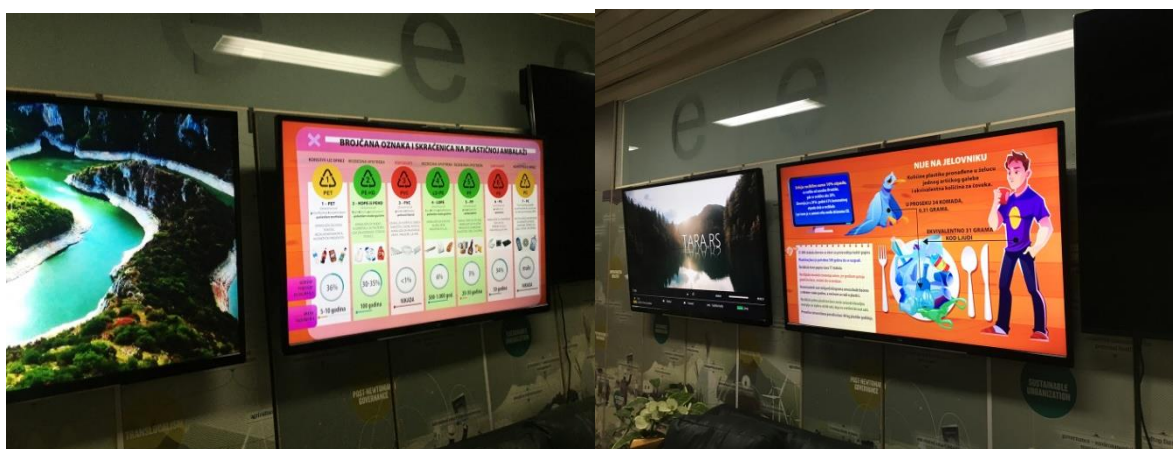
1.3 Project planning – Implementation - Evaluation

The project is located in the school grounds. Waste collection activities take place within the school grounds, the school yard, partner premises (Secondary Vocational Traffic School and Children's Cultural Centre of Novi Sad). All pupils, teachers, staff and guests of the school are included.

It is important to draw attention, educate, do some activity and develop a culture and awareness of removing plastic from our daily lives and needs. The video material in the central part of the school, which all pupils had the opportunity to see, guides and informs them about the problems of accumulated plastic, environmental pollution, collecting and recycling and providing interesting facts. Pupils actively participate in waste disposal.



Picture 5. Project Material



Picture 6. Project material

The realization of creation of points for collection of PET packaging. Pupils from the 1st to the 4th grade of the grammar school participated and recycled materials were used. The waste collection boxes are specially designed to encourage pupils to dispose the waste and to see the importance of recycling and ecology. It is a creative and motor exercise for pupils. The activity took place in the school premises.

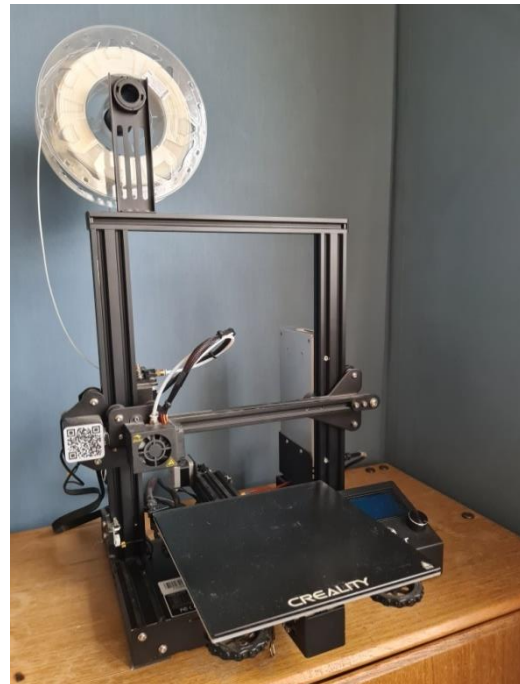


Project 7. Project material

3D printing is the production of mostly plastic objects using a 3D printer. A 3D printer is a device that melts a plastic wire called filament, and forms layers of the desired shape from the melted plastic. A three-dimensional object is created by placing layer upon layer.



Filament



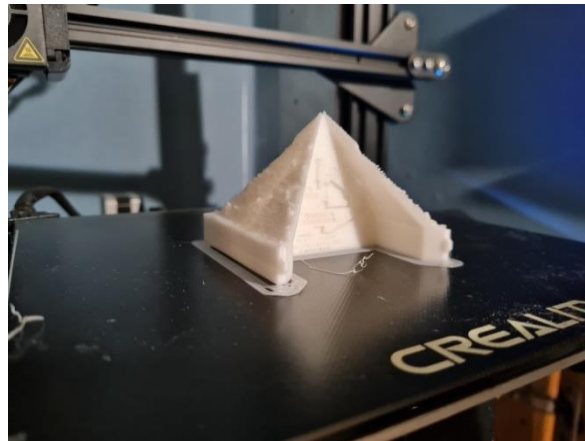
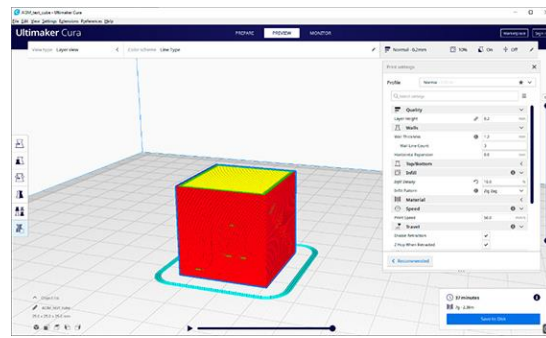
3D printer

Picture 8. Project material

In order for a 3D printer to be able to print a three-dimensional object, it needs filament (in free translation, filling). Filament is actually a wire made of plastic or some other material that the 3D printer melts and pours or 'prints' three-dimensional objects from the melted material. Depending on what we are printing, we will use the appropriate type of filament so that the object we are making has the appropriate, desired characteristics. Materials from which filament for 3D printers are produced are: PLA, ABS, PVA, PET, PETT, HIPS, Nylon, Wood, Sandstone, Metal, Magnetic Iron PLA (PLA with magnetic properties), Conductive PLA (PLA that can conduct electricity), Carbon Fiber, Flexible/TPE (flexible filament), Glow in the dark (filament that glows in the dark), etc.

We collected PET to get to the filament.

PET: This material is colorless and completely transparent in its original state, but when heated and cooled, its transparency changes. This is a fairly hard material resistant to breakage, so it is suitable for making thinner and smaller objects. In general, PET is a good material for 3D printing that has a pretty wide range of melting temperatures from 170 to 230 degrees Celsius.

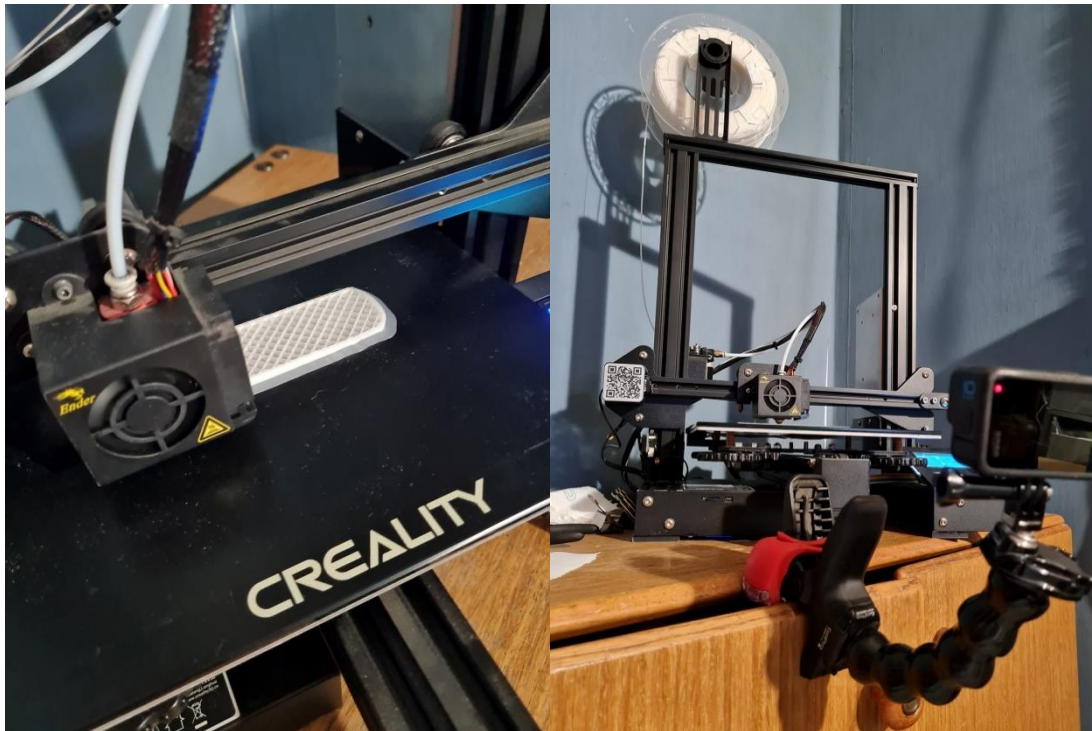


Picture 9. Project material

We used a filament that imitates the colour and appearance of marble, in order to get closer to the original works of art whose replicas we make. Approximately 120g/20 meters per model were used. The printing of one model took about 3 to 5 hours.

Pupils are introduced to modelling and 3D printing software. We used simple programs for 3D modelling in order for the pupils to get routine in creating 3D models, the program is Cura Slicing.

The model is first prepared in a digital form and then it is sent to the printer where the printing of the object begins. The pupil is involved in the entire process of work, he/she is an active participant and executor.



Picture 10. Project material

A decisive factor in the context of changing 'recycling awareness' is the economic benefit from recycling. The current purchase price of PET packaging in Serbia is very low. Thus, for a ton of plastic packaging, you can get from 110 to 240 euros. This turned out to be the weakest link in the process of our project.

The action of collecting PET packaging lasted for 3 months (from the beginning of April till the end of the school year, June). The campaign continued during the 2022/23 school year. Moreover, in the future, we will keep this form of raising awareness about recycling and educating pupils. The activity proved to be well received by the pupils.

We collected 13 sacks of 120l each. The purchase of the collected waste turned out to be the problem because the buyers did not want to come and collect the PET packaging without the weight of 1T. We ourselves took the collected waste to recycling by the school car.

Raising the purchase price of plastic packaging in Serbia would bring positive changes in recycling. Apart from the reduction of plastic waste in the environment, such a move would bring the possibility of additional income to the poorest and marginal sections of society, such as the Roma population.

The Roma population, whose existence in most cases depends on the collection of raw materials at city points, plays an important role as informal recyclers in the society. They provide an excellent example of a circular and sustainable economy in practice, which has a positive impact on the environment and the economy in the context of resource reuse.

From the collected and sold PET packaging, we got just enough to buy GEMBIRD Filament PLA for 3D printer 1.75mm 1KG Marble (3DP-PLA1.75-02-MAR) (Price: 4590 dinars) 1KG filament is about 325 meters. Approximately 120g/20 meters per model were used.

Art in its various forms is recognized as a field necessary for the education of the 21st century - art education develops in children qualities that are not only applicable to art but also bring benefits in other fields: science, IT, programming, entrepreneurship... In other words, principles adopted during this curriculum are applicable to the entire field of education.



Picture 11. Project material



Pupils develop:

Creativity

Creativity is a very important factor both in everyday life and in education. The pupil learns to think creatively through practice, which will help him in the future of education. He will become an independent person and will be able to educate himself on his own initiative, to create without any obstacles. His possibilities will not be limited.

Motor skills

By participating in activities, motor skills increase (from simple actions with scissors to technical and digital performance).

Confidence

Public performance is the perfect way for a child to step out of his/her comfort zone by doing something fun and progress in terms of emotional intelligence, i.e. work on raising self-confidence. Children under the influence of art express their creative abilities more easily.

Visual learning

Art teaches children how to interpret, criticise and use visual information. It also teaches them to make decisions based on them. Research has shown that more can be learnt when something is presented visually than through reading the text.

Perseverance

Persistence in anything you do is very important because persistence pays off. This attitude will definitely be valid for later life, especially during your professional career when you will encounter various obstacles and challenges that you must find ways to overcome.

Focus

Focusing teaches patience, calmness as well as composure. The best way to do this is through art — you practice staying composed in an interesting way while creating a beautiful piece of work.

Collaboration

An activity that requires group work. Compromise leads to the highest success, and this is achieved through collective work. In this way, children learn that their contribution to the group is an integral part of success, even though they do not have a leading role.

Responsibility

In the group, everyone has a role that carries responsibility with it. If they do not complete a certain task or make a mistake, children need to understand that it is important to take responsibility for what they have done. Mistakes are an integral part of life. Children should be taught how to accept mistakes, correct them and move on, because this helps them a lot during the period of growing up.

Motivation

Internal motivation is the goal of success. Our own desire to work is what drives us and makes us shine. Through work and art, motivation is manifested by the desire for perfectionism.

By applying multidisciplinary learning through combining different types of art, followed by an interactive approach of combining art and technology, pupils have the opportunity to release their creativity, adopt the principles of out-of-the-box approach to problems and create interesting works as an expression of their inspiration.

In the modern age, the development of creative thinking is best achieved with a multidisciplinary approach.

Characteristics are developed in pupils:

- the ability to think creatively;
- out of the box problem solving;
- self-confidence;
- communication;
- teamwork;
- concern for others and the environment.



a) Definitive title of the project (chosen by the students);

From PET to 5 (from PET packaging to 5 as a mark, something that is excellent), a wordplay

b) Some planning done by the students (mural, dossier, etc.).

Pupils on the elective subject of Graphic design create a logo for the 'from PET to 5' project and a commissioned poster on the topic of recycling, which will be published on the school's website, social networks and in the school newspaper, which is prepared for the end of the school year.

Video presentation of pupils participating in the Erasmus project in Slovenia is shown in the central hall of the school to their peers and teachers.

1.4 Multifocal evaluation


Science and knowledge must serve practical needs, ie. that the task of the project is to teach pupils about life through practical works; instead of lectures, knowledge is acquired through one's own experiences in a social context, based on the children's personal affinities (for communication, research, artistic expression, work).

The project supported and developed in its course:

The project raises awareness about the environment and the fight against climate changes, but also fosters changes in behavior according to individual needs, consumption habits and lifestyle in terms of environmental sustainability (e.g. we can reduce the use of single-use plastics - bags, straws, plastic bottles, plastic cutlery, etc.).

Within this project, the focus was also on promoting cross-curricular cooperation through the use of innovative teaching methods, developing creativity and providing support to teachers in conducting competency-based teaching, as well as developing assessment and validation of key competencies.

Team work puts pupils in an equal position, which increases their personal responsibility for learning, as well as the dynamics of work - use of modern technology, learning outside of school, etc.



It brings a partnership relationship in the work on the project - collaborative relationship between teachers and pupils, development of communication and organizational skills of pupils, interdisciplinarity in learning and pro-activity of pupils, openness in solving problems, creativity and heuristic approach to the problem.

The value of this kind of teaching lies in the fact that during the implementation of the project, the pupils learn some content spontaneously, without pressure, and thus master cognitive and social skills. The school becomes 'open' and connects to a greater extent with the environment that surrounds it.

Finally, we would like to emphasize the importance of gaining experience at the international level, both for pupils and for teachers and the exchange of good practices.

The results we achieved and the method of formulation and implementation of the idea have a wide application and interdisciplinary dimension.

The project and action of collecting PET packaging can also continue in the following school years.

From PET till 5!

2 IES CID Campeador Spain

2.1 Preparation

The project was implemented in IES Cid Campeador, a public secondary school in Valencia, Spain. The main part of the project was included in the curriculum of the subject of Technology that is an optional subject for 1st Bachelor. All the students in the first year after Secondary Compulsory Education are eligible to take this subject. In the year 2021-2022, a group of students enrolled in the subject. The Technology teacher took the leading role and the English teacher acted as a support in the design and implementation of the activities. Meanwhile, the rest of the Educational Community was involved along the development of the project to a certain extent.

The syllabus of this subject includes an Introduction to the science of Plastics :

- How to obtain this material and classify the different types of plastics.
- Relationship between the properties and the internal structure of plastics
- Manipulation and mechanization techniques for the handling of plastics
- Handling machines and tools to work with plastics

The study of plastics is very important to develop the necessary abilities in the physical world that surrounds the students. This study makes them aware of the fact that these materials are present in their everyday life. Moreover, highlighting the importance of plastics in our present society, both from the consumption point of view and from the recycling point of view is also essential to point out the environmental impact of the plastics which are not recycled as well as the need to reusing them.

The service to be performed consists of raising financial support needed to fund sick children whose families lack resources to pay for the necessary treatments. Alongside, to contribute to the protection and improvement of the environment by recycling plastic caps and avoiding that they end up in landfills. We hope to encourage the importance of the students' collaboration with society and to try to make them socially responsible by encouraging their participation in voluntary recycling work.

The main learning objectives acquired during this project are:

- To distinguish the main characteristics of plastics and to classify them according to these ones.

- To learn how to classify plastics according to their characteristics.
- To describe the main production processes of plastic materials.
- To identify the different types of recyclable and non-recyclable plastics on everyday objects.
- To get to know the uses of plastics in our present society and to observe their advantages and disadvantages in comparison to more traditional types of packaging.
- To achieve people's awareness to recycle, reduce and reuse plastics and other materials.

The main competences developed while performing the project are:

- Competence on linguistic communication. In the search for information all the contents related to the acquisition of the reading comprehension competence are explicitly dealt with.
- Competence on the knowledge and interaction with the physical world. The study of plastics is very important to develop the necessary abilities in the physical world that surrounds the students. This study makes them aware of the fact that these materials are present in their everyday life.
- Information processing and digital competence. In the search of information about the issue on newspapers, books or on the Internet. Also, when writing the memory of the project.
- Social Competence and Citizenship. Highlighting the importance of plastics in our present society and their environmental impact.
- Learning to learn Competence. Students achieve this competence by researching by themselves, suggesting ideas for their projects, working in teams, writing memories of the projects...
- Personal Initiative and Autonomy Competence. The knowledge and information contribute to the achievement of this competence. The creativity when suggesting projects. Ideas they can suggest to improve the recycling process.

2.2 The partnerships

Our school is going to collaborate actively with the initiative “Caps for a new life” which is the main project of the Spanish Foundation SEUR. This project has already helped more than 171 children by collecting and recycling plastic caps. With this initiative, they have had an enormous social impact since they have been able to collect 1,200,000 € with which they have financed medical treatments and orthopedic devices.

Moreover, thanks to this project and the involvement of many people and institutions, 6,542 tons of plastic caps have been recycled. Also, this has avoided the emission of 8,198 tons of CO₂, which is the main gas responsible for the climate change.

Our school has signed a collaboration agreement with the forehead mentioned Foundation and has been appointed a three-year-old child, Lola, from Huelva in the South of Spain who suffers from BPAN, an extremely rare neurodegenerative disease which consists of an over accumulation of iron in the brain. With this project we intend to raise money to finance a tricycle to help her walk and also support her physiotherapy treatment.

Our compromise involves the collection of plastic caps which will take place in the school premises. A container where all the educational community can drop their caps will be placed at the entrance of the school. Every month the caps will be sent to SEUR who will keep record of the amount of caps and this will be turned into money that will be transferred to Lola, the three -year-old we are going to offer our support.

2.3 Project planning

Students from different high school courses made a panel with recycled plastic caps to raise awareness about the importance of keeping our seas and oceans free of plastics and pollution.

Plastic waste has a terrible environmental impact, and can take up to 1000 years to degrade. This waste put the safety of the ecosystem and especially in the oceans at risk, so it is essential to be aware that the use of unnecessary plastic must be reduced.

The surplus plastic earplugs will go to Fundación SEUR's 'Plastic caps for a new life' project, from where they are sent to a recycling plant and thus finance medical and orthopedic treatments to help children with health problems.

2.4 Implementation

High school students from IES Cid Campeador have used some 2,000 plastic caps to create a giant mural that has been placed in the technology classroom. They explain, "it is about giving a second life, full of colour, to the caps, donated by the families of the school before being definitively recycled".

The response from the students was very positive, despite the fact that they did not know what the destination of the plastic caps was, they began to collect them and bring them to the school non-stop. Together, they managed to raise just over 150,000 caps of various different colors. Their motivation raised when they discovered that they would make a giant mural and that, in addition, they would help improve the lives of other people.

It is a large mosaic of more than 2.5 x 1.5 meters in which we can find a replica of a design made by one of the students.

How to make a mural with plastic caps?

1. The first phase of the work consisted in classifying the caps by color: White (the most numerous), light blue and dark blue, red, green, orange and the fewest: yellow, black, brown, gray, transparent, pink, purple, gold etc.



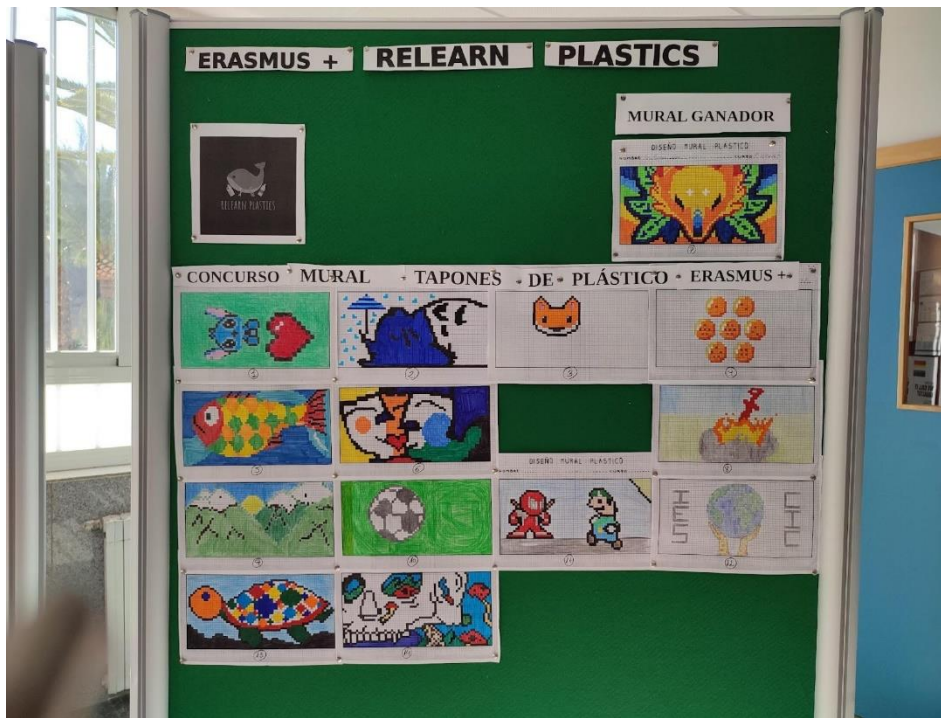
Picture 12. Project material

2. Brainstorm. Each student designed their sketch on a grid template, where each square represented a stopper.

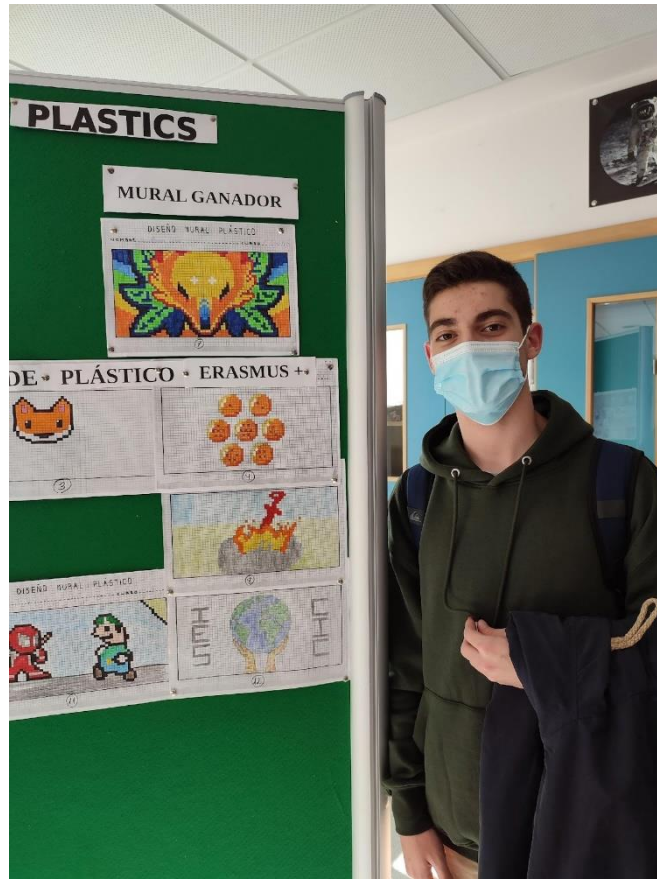


Picture 13. Project material

3. By popular election, one of the designs was chosen.



Picture 14. Project material



Picture 15. Project material

4. Then you need to place the caps following the idea of the sketch. It can be in a row, zigzag, diagonally, forming a circle.



Picture 16. Project material

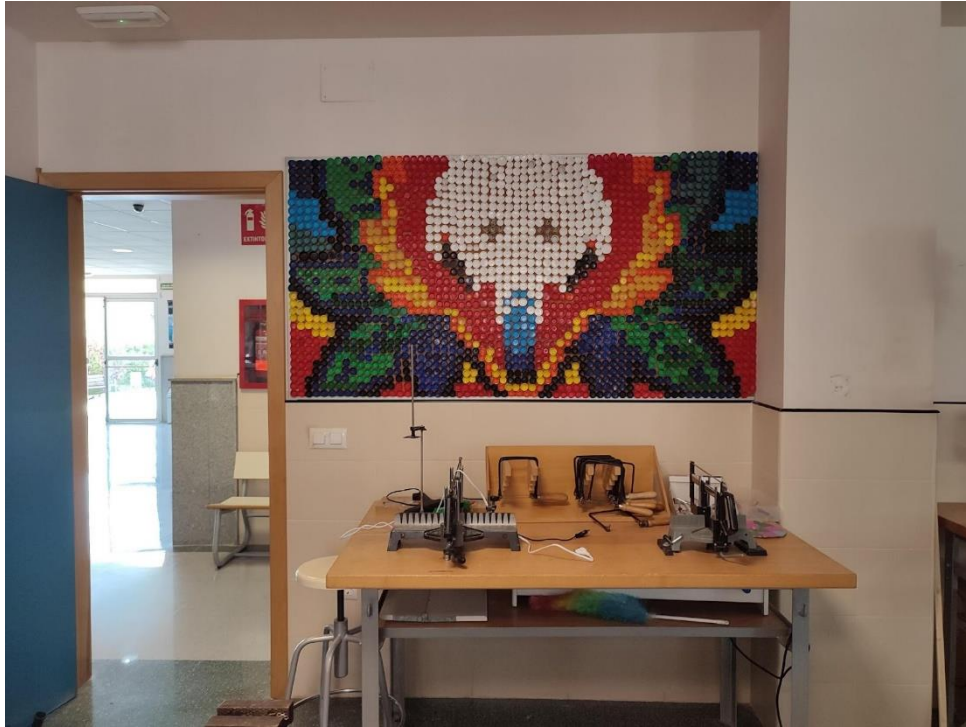


Picture 17. Project material

5. Finally, you can enjoy the caps mural shown in the school. It allows all the community to be aware of the work done and it contributes to promote reflection on the recycling of plastics and the need to change habits and attitudes.



Picture 18. Project material



Picture 19. Project material

2.5 Evaluation

We identify the evolution of the students and it will be analyzed with evaluation tools, such as the follow-up sheets, the specific rubric and other annotations.

The techniques used are:

1. Survey or interrogation with questionnaires and interviews with students.
2. Observation and recording of the learning process.
3. Analysis of individual and group productions.

The assessment tool has used qualifiable parameters, which are related to competencies.

The evaluable parameters are:

- The degree of participation of the sessions carried out in the workshop
- The implication and interest shown by the students for the work done
- Habits and attitudes modified after the project
- Interest on the side of the teachers
- Continuity of the project


In all of those parameters, the results of the students' evaluation have reached a high standard. Their motivation and implication have been high during the development of the project. At the same time, it is impressive how their attitude and habits towards recycling and reusing plastics have become much more conscious as well as their consideration for those in need and the realization that their actions can have a direct impact on the life of the people around them.

2.6 Multifocal evaluation

The teachers' reflection and evaluation of the project has also been completed and conclusions have been drawn.

Regarding the evaluation of the service, it is clear that it meets actual community needs, it has had a good impact since it was determined by appropriate research discovered by students with the teacher's assistance.

Active, direct collaboration with the community has been coordinated by the teachers and students. Moreover, the project has integrated service learning into the academic curriculum. We consider that



it also has had a strong impact on facilitating the students' active reflection since the students think, share, produce reflective products individually and as a group. Another asset has been the possibility of using academic knowledge on real life settings. All students have direct application of the new knowledge in the community service. Regarding the sense of caring for others, the students' reflections show deep personal understanding of the importance of the service and their ability to make a difference. Students are likely to take the initiative to serve again. Finally, the impact of the project has improved the quality of life for the persons served. It has facilitated change and insight because it has helped met a need.

As regards the organization and partnership of the project, it has involved two organizations, the school, which plans and carries out the educational side and the Foundation, which is the social entity that offered the service space.

The partnership has been very positive because it has had the recognition of the school management and the support of the entire educational community. All the parts have accepted and valued the educational function developed by the project.

3. PGMS Cyprus

“Relearn Plastics” was not just another project that focused on plastic waste, as it differentiated itself from the rest by tapping into the imaginative and artistic nature of students. In today's education system, students are no longer satisfied with just receiving information, and this project stood out because it focused on action rather than learning. The project encouraged students to unleash their creativity, experiment, and take risks to bring their ideas to life.

Overall, we consider the project to have been a success, and it has provided us with ideas that can and will be integrated into our school curriculum across a range of subjects including, but not limited to, art, music, dance, geography, and of course, STEM.

The course of the project, taken by PGMS, from start to finish, is illustrated in the following sections, encompassing the investigation, preparation, implementation and evaluation stages.

3.1 Preparation

3.1.1 Explaining the Idea


Following the Needs Analysis, we identified the following areas for improvement.

Ongoing public awareness activities in the school's neighborhood. The rubbish sorting game can be used in conjunction with the awareness campaign. This has been beneficial in generating recommendations on how the school's current waste management system might be improved.

Simple interventions such as informational signs can prompt schools to consider how to separate their waste.

Then we decided to incorporate Environment Lessons and the Relearn Program into the existing curriculum during STEM Program, Geography Subjects, and Environmental Club on a yearly basis.

When we discussed with important professionals around the subject for waste management in Cyprus, GreenDot, we learned more about the challenges that must be faced and why there aren't enough recycling bins. The suggestions for enhancing garbage recycling at school are equally applicable to the local district and Cyprus as a whole because people in general have favorable attitudes towards recycling and recognize its importance. Waste separation at the source can prevent the country from landfilling most of its municipal waste, but efficient recycling infrastructure in Cyprus is also required



to lessen the country's reliance on waste export. Educating children about the value of recycling at an early age can lead to an increase in good behavior towards it.

Recycling programs and public incentives can encourage more people to participate in the Relearn Plastics Program.

On the School Level, our findings show that:

(a) students were driven to recycle, but they weren't always aware of what things were recyclable or where recycle bins were in schools; and

(b) even though students wanted to recycle, they didn't always recycle. Bins were not strategically located in crucial areas, and

(c) the cleaning staff lacked a clear plan for monitoring the recycling system.

Social need: finding real needs that make students interested and motivated.

To lessen our environmental imprint, it is more necessary than ever to grasp the importance of recycling and waste prevention in today's climate. There is currently a movement to reduce waste and recycling, but with the assistance of the education sector, the impact might be enormous. Every school teaches about climate change, the effects of the environment, and the impact on our planet. In contrast, we do not teach the activities that we may conduct out to aid our school and district community in resolving and tagging those issues with hands-on activities.

Teaching the social ramifications of recycling, as well as the effects the activity has on facilitating social relationships, are critical at the school level. We inspire students to think about how their personal activities affect the earth and their future environment by teaching them about the necessity of recycling. Students who learn about recycling at school are more likely to make it a habit, resulting in more responsible adults. This encourages students to incorporate recycling strategies into their daily lives, thereby reducing the amount of waste they generate at home. Handling school waste has a big environmental impact, but it can also favorably impact the attitudes of students and parents. The education industry can inspire youngsters to participate in other ecologically beneficial practices by instilling a feeling of environmental awareness in them. This can be appealing to the parents of prospective pupils.

3.2 The partnerships

GreenDot was brought on board for partnerships, but due to the project's focus on utilizing art as a means of knowledge transfer, the school also enlisted the help of teachers specializing in art, dance, and music, in addition to those in STEM, Geography, and the Environmental club. The main commitment was the pupils' continual information, but more importantly, the building of attitudes and the adoption of behaviors for sensible waste management.

Green Dot Cyprus has launched several programs to not only contribute effectively, but also to collaborate with other organizations in the struggle to address Cyprus's trash problem and, more broadly, to shape young people with environmental awareness and responsibility. Laniti Ltd is not only one of the founding owners of Green Dot Cyprus, but also one of the Organization's most essential information and education partners.

Nicosia Green Dot has formed a collaboration with the Grammar School, and it is a collaborative effort that demonstrates the school's cooperation.

The educational sector may make the greatest contribution to the development of environmentally conscious and active young citizens. This Partnership aims to assist teachers in approaching the specific issue using modern pedagogical approaches and teaching strategies, to enable all participants in the educational process (teachers, students, and parents) to understand the role and responsibility we all have in rational waste management and, thus, in the conservation of our planet's natural resources. This instructional material consists of a set of self-contained educational suggestions designed to provide and empower all those who would utilize, study, and assess waste management challenges.

Waste management that is sensible results in the conservation of our planet's natural resources. This instructional material consists of a set of self-contained educational suggestions designed to provide and empower all those who would utilize, study, and assess waste management challenges.

3.3 Project planning

The project's commitments are as follows:

- the development of critical thinking and the reconsideration of many of our actions and behaviors in relation to trash production.
- The right to choose based on a study and reassessment of beliefs, principles, attitudes, and behaviors linked to waste management.
- Waste reduction in the school because of the above two components.
- Waste reuse as an innovative, but also alternative, waste management process.
- Waste management concludes with recycling.

Experiential and hands-on learning.

- Recycle experimental investigation
- Creative Learning.
- Games and competitions for learning.
- Interdisciplinary and integrative investigation; - Exploration of the immediate local environment.
- Active participation and action based on the premise of "thinking locally, acting locally - thinking globally."

Consider the big picture. Based on the pedagogical principles, the educational proposals proposed address various aspects relating to waste management (e.g., recycling, reduction, reuse), environmental degradation and natural resource depletion, approaching perspectives relating to school life, daily habits and resource use in citizens' daily lives, production processes, and consumption.

Preparing of students

We selected several student groups to take part in our Relearn Plastic initiatives, and tailored our preparation accordingly, taking into account the specific lesson or group involved. The following common practice for all students was then to be followed:

We presented information on plastic pollution to the students, specifically highlighting the impact of plastics on oceanic ecosystems and ultimately, our own lives. As part of this presentation, we showed the class (or assigned as homework to some) a brief episode from the docuseries History 101 - Plastics (Season 1, Episode 4). This particular episode was chosen because it offers a balanced perspective on plastics, acknowledging both their benefits and drawbacks. We recognize that plastics play an important role in our daily lives, and we encouraged students to reflect on this fact. Our goal in raising

awareness about plastic pollution is not to completely eliminate plastics from our lives, but to find ways to reduce, reuse, and recycle, as well as to seek out new solutions as demonstrated in the documentary.

Student Plan:

- Green Game – Sort the Trash / Signage - **Recycling**
- Create posters and comics – **Disseminating Reduction**
- Collect and Paint Plastic Bottles during Art Lessons / Produced Instruments - **Reusing**
- Prepare a performance (music/ dance) using plastic instruments created by students - **Reusing and Dissemination of the problem**

Green Game – Sort the trash

Teaching students about environmental stewardship is a vital component of their development. It teaches kids respect, empathy, patience, and responsibility, as well as the importance of consequences. However, it also teaches kids important lessons about sustainability and how we want to leave the environment to future generations. Throwing recyclables like plastics, cans, and paper in the recycling bin is more than just separating recyclables. It teaches young people how to save money by demonstrating how to minimize waste. They learn about the benefits of cashing in domestic recycling by recycling cans and bottles. Students also learn about energy conservation and resource conservation by recycling. When you sort through the garbage, you can see how much of it can be reused and put to good use. Another issue is the threat of garbage being dumped back into the soil, as landfill is a fantastic way for students to learn about ecology and how valuable the world is. Students that learn to recycle at school may spread the word and ensure that individuals sort recyclables at school, sports clubs, and with their friends. What we do today will determine our future, and good habits can become second nature.

The students in this game will be requested to form groups and then simply separate trash from recyclable materials.

The students will be given recyclable bags and trash bags and are to be presented with a big box that will include recyclable materials and trash.

Each group will be requested to divide between the trash and the recyclable materials. Each winning group will get awarded a small prize.

Relearning Plastics through Digital Art - Comic Strip /Poster

The goal of this assignment is to address the issue of plastic waste **using art**, and students will be introduced to the concept of **digital art** and **designing imagery**, particularly in the form of posters and comics. Students will get to work on their computers in pairs to create either a Comic Strip or a Poster. The application/website used to create either of the two will be Canva. Alternatively, Pixton can be used for the creation of the comic strip.

Students will be allowed to choose between the creation of a poster and the comic strip.

Once students are introduced to the subject and after the class presentations and discussion the first task will be introduced to them - The creation of Comics or a Poster using Canva.

1. Presentation on plastics and task

This presentation brings the subject already discussed in class and includes the process and a how to of creating the comic strip. For example, explaining what is expected to go into a comic. (i.e., the text must be short sentences, there needs to be a sequence of events etc.) The following was explained to all students whether they would choose to create a poster or a comic strip, however this is the process to be followed for the creation of the comic.

2. Creation of a script

Each student must first write down the script which they would follow in the comic. Apart from the elements described below the script includes a small paragraph of what the comic is about. In the script the following will be identified.

- a. Heroes
- b. Action
- c. Dialogues between the heroes
- d. Scenes

The different scenes that will be taking place and essentially each of their comic panels. (Each scene can stretch over more than one panel)

3. Creation of a storyboard

Once the script, heroes, action, and scenes are identified students have to create storyboards on a paper.

4. Creation of the Comic Strip or a Poster on Canva.

Canva is an easy to use/ intuitive tool however a lesson was devoted to show and explain how students could use Canva to create the comic strip.

5. Students will get to work in pairs and each pair chose whether they would create a poster or a comic strip.

The posters and comic-strips created will be presented in class but also at the Science Fair held at school where students will get to present their work on different subjects and projects.

Collect and Paint Plastic Bottles during Art Lessons / Produce Instruments

The next project is **reusing resources** in the classroom for something creative, which may be a terrific and simple approach to teach students about waste reduction. Repurposed materials can be used to create art projects that encourage pupils to be creative. We have a budget for this endeavor. By incorporating objects that would otherwise be discarded into creative projects, children can learn how to discover new applications for these items.

This project is separated in two phases:

Phase 1: Creation of the instruments.

Objective: Music is to be made using objects acquired from school/home, such as plastic bottles, plastic pipes, and screw caps.

Plastic containers provide a robust sound that is easy to grasp. Students are to collect and clean plastic bottles or other containers from school bins or at home to make musical instruments.

Students will utilize additional material where needed such as dried beans, lentils, and rice for the filling since each filling produces a different sound. In general, material to be gathered are:

1. Plastic bottles of different sizes (to create percussions)
2. Big plastic water bottles/paint buckets (to create drums)
3. Long Plastic Tubes (Provided by school – To create a kind of drum 😊)
4. Old Plastic Mats (to use instead of sticks for our unique drum as well as for putting the drum together)
5. Things to be placed inside the bottles
 - a. Buttons
 - b. Beads
 - c. Dry Food
 - i. Rice
 - ii. Lentils
 - iii. Pasta of different sizes
 - iv. Nuts

6. The plastic containers will then be washed disinfected and dried.
7. Each student / group chose the instrument that they will create choosing different material for different types of sound (High/low etc).
8. Students will decorate the bottles with vivid colored coats of thin acrylic paint to add a bit extra fun to the mix.

Phase 2: Stage a performance utilizing the instruments that were created.

Objective: Disseminate by presenting the performance staged by students to the school's Talent Show where parents and other guests would watch.

The following plan was set down for this phase.

1. Students will watch a Video – Docuseries (explained in the section above) on Plastics at home.
2. The students will be shown some STOMP videos to get them worked up and see how we could use plastic materials as part of our orchestra and as part of the show.
3. The idea of the show will then be presented to them - A musical / dance performance to raise awareness of plastic pollution using musical instruments created from plastic materials. This is where students will be invited to share their own ideas of how we could succeed.
4. The plan to be followed:
 - a. Plastic Instruments created from Phase 1 will be given to our music teacher and orchestra students where they will decide on the song to be performed making use of the instruments created.
 - b. Once the song is finalized it will then be given to our dance teacher and involved dance students that will prepare their dance performance.
 - c. Perform at the school's Talent Show

3.4 Implementation

Even though we started out focusing on specific activities/services that would involve students in the classrooms during the implementation of the project more ideas were actually brought to life. That is, apart from the posters and comics the plastic instruments and performance we also did the following:

- Quantify Schools Waste (Waste Audit Plan)
- Creation of a mural on school grounds using plastic caps

Quantify Schools Waste (Waste Audit Plan)

We conducted a waste assessment to determine the types and amount of garbage generated by your school or district. For this task, we gathered data from the cleaning, maintenance, Green Dot, and cafeteria to quantify or estimate the quantity of garbage generated by our school or local community. This assessment assisted in identifying current trash disposal techniques and began to consider how these systems may be adjusted to make our school more environmentally friendly and sustainable. Once completed, new plastic recycle bins were donated by GreenDot which were placed in strategic places in the school. A poster showing the correct recycling separation was created as a cooperation between Green Dot and the Grammar School and was placed in all classrooms and corridors.



Picture 20 : Poster PGMS - Green Dot - Correct methods of recycling





Picture 21. Project documentation

Mural using caps on school grounds

A mural of a rainbow tree was created on school grounds by using caps from plastic bottles.

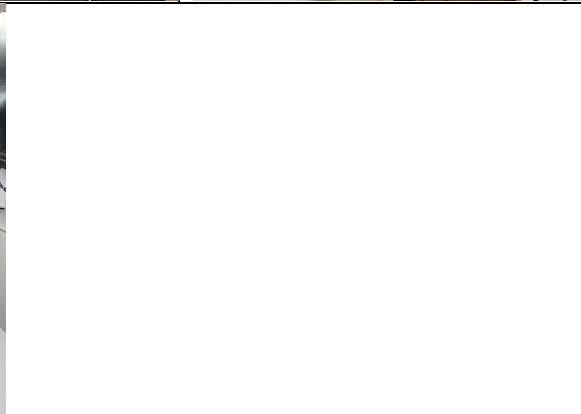
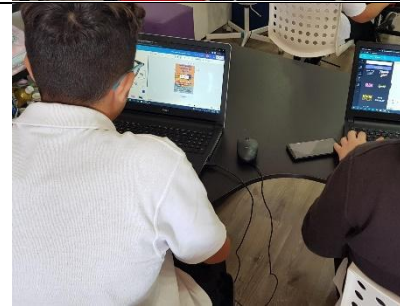


Picture 22. Project documentation

Posters and Comics

Posters and Comics around the problem of plastic waste were created by students and placed in school corridors after being presented at the school's science fair.

Presentation on plastics & work on Posters and Comic Strip



Posters

| | | |
|--|--|--|
| <p>Do's</p>  <p>bring your own water bottle</p>  <p>bring your own bag</p>  <p>recycle your waste</p> | <p>Dont's</p>   | <p>ECO-BRICKS</p> <p>How much plastic can fit into an eco-brick? A 500ml bottle can fit up to 300 grams of plastic</p>  <p>how to make an ECOBRIK</p>  <p>ALL PLASTIC EVER CREATED STILL EXISTS</p>  |
|--|--|--|



SMALL BUT HARMFUL

million pieces of plastic pollution end up every hour in the ocean every day.

8 million more and more plastic pieces are floating in the open ocean.

Microplastics always come back to you, because they swim like in the food chain.

5,25 microplastic pieces are present in 1g of sea salt every year.

Microplastics and their effects.

In the ocean, plastic containers release an incredible amount of microplastics.

- A single bottle can release a million pieces of a few microns in size.
- Around 100,000 plastic bottles are thrown away every day in the UK.
- These plastic bottles are broken down into tiny pieces called microplastics.
- These microplastics are then eaten by fish and other marine life.
- These microplastics can then be eaten by humans.
- These microplastics can also be inhaled when we breathe in the air.
- These microplastics can also be inhaled when we breathe in the air.

Solutions:

- Avoid plastic bottles if you can, switch to reusable ones.
- Don't litter, especially in the ocean.
- Support local environmental organisations, such as the Surfers Foundation, Greenpeace International, The Royal Society and more.

OUR PLANET IS CHOKING ON PLASTIC

Toxic additives can be absorbed by the skin, evaporate into the air or absorbed via the food or drinks we consume

STOPPING PLASTIC IS FANTASTIC

Mom why did dad die?

Microplastics gathered in his stomach.

Is that gonna happen to us?

Eventually yes.

How can we prevent it?

Well if we stop pollution in our habitat there will be a lot less of it.

You can help us too!

OH NO! A SHARK HAS EATEN PLASTIC!

Oh, tasty fish!

I don't feel so good.

What did you eat?

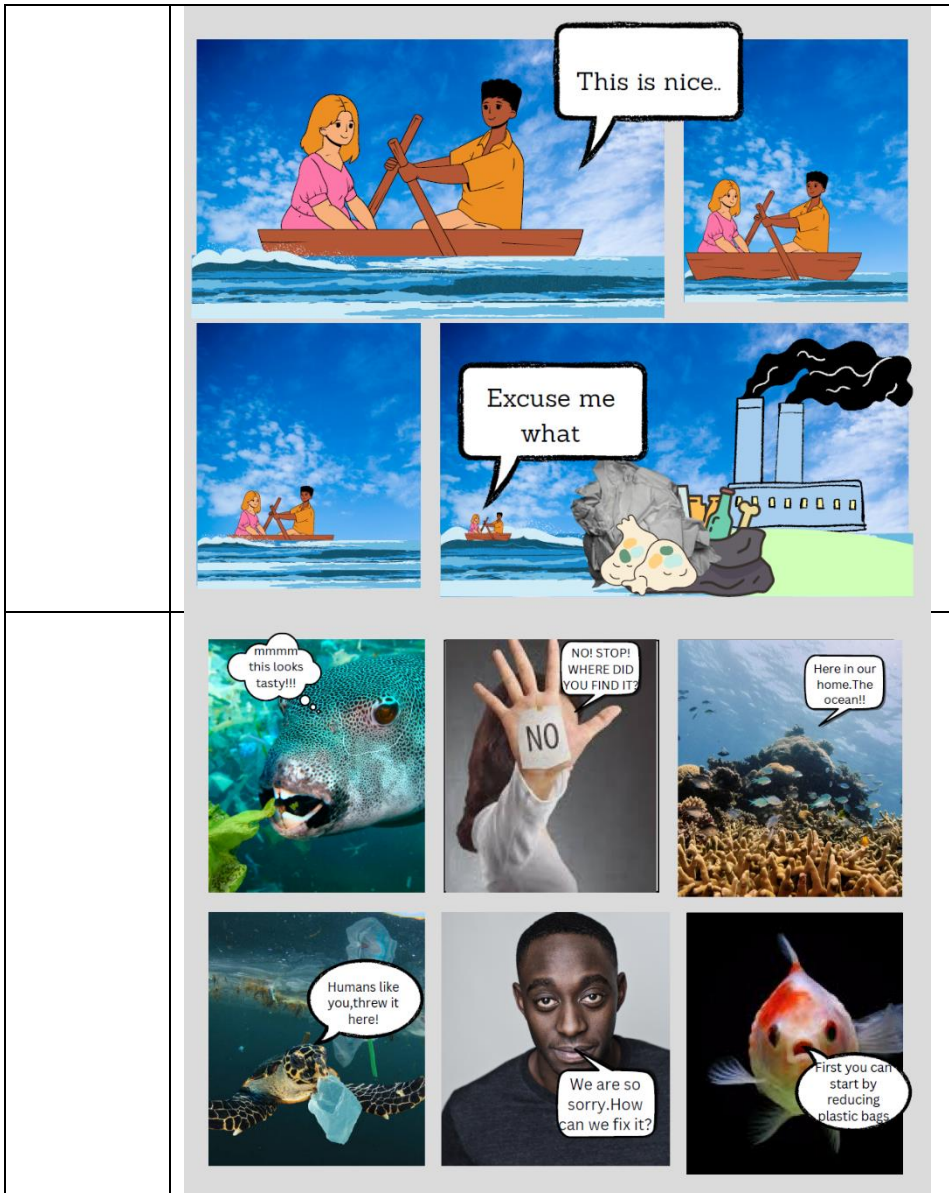
A bunch of fish.

So you ate a bunch of plastic!

No, I didn't!

Yes you did!

Nowadays, because of plastic pollution in the oceans, fish accidentally eat plastic. So the reason that your feeling sick is because the fish you ate had inside them plastic.



Plastic instruments

Plastic instruments were created by students using plastic bottles and other containers and decorated them accordingly.





Painting of the musical Instruments



Music/Dance Performance

The dance/music performance using plastic instruments created by the students was then presented at the school's talent show with over 600 people in the audience. The students chose to perform the song is a Hard-Knock Life. 15 members of the orchestra were using the plastic instruments while ten girls danced to the song using brooms.



Picture 23: Click on the QR code to watch the performance






3.5 Evaluation with students

Once the activities were completed both students and teachers were asked for their feedback on the activities performed as part of raising awareness on plastic pollution.

Students found the creation of the musical instruments' activity, more fun than the poster activity. The fact that from materials that they would once throw away they created something useful, and fun was very interesting to them.

Students creating musical instruments found it as a better way of helping in some way in the reduction of pollution and realizing that the reuse and not just the recycling plays a big role in the reduction of plastic.

Students taking part in the musical performance found it very fun and interesting. Students that were part of the orchestra even considered creating a band for next year in which they would create even more instruments from reused objects.



The students who participated in the poster and comic strip activity expressed that they believed their contribution was primarily aimed at raising awareness about the issue of plastic usage, rather than directly assisting in efforts to reduce plastic waste.

With regards to teacher feedback, the art music and dance teacher found the activity interesting and fun. When asked if they would use this activity in the future the answer was positive.

All teachers when asked what they would take from these activities was that there's a lot that can be done both creatively and practically in both helping to raise awareness and reduce plastic pollution.

Also, they replied positively to the questions about the activities giving them new ideas and a new approach to their area of practice.

3.6 Multifocal evaluation

The Learning Outcomes for Environmental Education


All of our teachers and administrators demonstrate environmental responsibility and sound decision-making by implementing the Relearn Plastic Program in their schools. PGMS School recycling program also provide students with hands-on, project-based learning opportunities to teach them about sustainability. Environmental education serves as a foundation for learning about economics, current events, and environmental policy and legislation.

The Learning Outcomes for Service Learning

The Program also promotes service-learning by providing hands-on activities that extend beyond classroom learning. Students, for example, could participate on community rubbish collection days or share recycling advice with their neighbors. Service learning gives students significant community service experience while also teaching new skills such as communication, teamwork, critical thinking, and decision-making.

Students are encouraged to participate in this initiative through classroom instruction and/or extracurricular activities. Students have gained a sense of ownership by actively participating in the school program and are now more likely to enlist their peers as well.

This initiative Encourage students to participate in class and/or extracurricular activities. Students have gained a sense of ownership by actively participating in the school program and are now more likely to enlist their peers as well.



Other pupils have been urged to join the environmental group. We collect and categorise resources by type more efficiently as a school. Students also organize the recycle bins better. Cleaning and maintenance personnel keep an eye on the recycling bins to ensure that they are not contaminated.

Students participate in school-wide assemblies as part of the continuous programme and activities to generate excitement for the Re learn programme.

Our future intentions are to discover ways to recognise and reward students for their participation, from individual to class level.

3.7 Testimonials

Teachers

STEM teacher “Learning ways to make changes for a more sustainable environment is actually a way to protect ourselves”

Music teacher “Definitely. It's a win-win as the students get hands-on creating instruments”.

Art teacher “After participating in this activity, I will continue to develop Art Projects to create awareness regarding Reduce and Recycle”

Dance teacher “Dancing is an art and can be achieved with lots of imagination, and this is what this project was about. Students were very keen but stressed at the same time to participate in this performance, as was I, as it was something we hadn't tried before. The end result was even better than expected and well accepted by the audience”

Students


Students on being asked how they liked the activities

“What I liked the most about this activity was the ways humans found in order to save plastic and make non-recyclable plastic reusable through eco bricks and etc.”

“I had to work with my friends to create a creative comic strip in order to educate other people about microplastics”

“I love learning about the environment and what we can do to help it”

“That we got the chance to help in this project and also reused plastic materials through the use of art.”



“That people can create musical instruments to spend their time effectively with materials found in the environment around them and at the same time help to create a more sustainable earth.”

4.BC Naklo Slovenia

4.1 Preparation

4.1.1 Explaining the Idea

1. Defining where to start:

- ***Where will be the project located??***

As agreed in the bilateral meeting, we're planning two activities with two groups/classes of students. Presumably, one will be located within the school or rather centre (including secondary school, vocational college, dairy, shop, project office ...) and the other will be located within the municipality.

- ***Where will be the activities developed?? (Beach, mountains, parks, city, school...)***

The activities will be developed within the municipality/local community in the town of Naklo where the school is located (school estate, shop, town, park, forest) and hopefully extended to the students' immediate home environment/their local communities.

- ***Who can participate in it and their roles??***

Students of first- and second-year Nature Conservation classes, 2 English teachers, 2 teachers of Nature Conservation, art teacher, stakeholders and decision makers on the level of our centre and the municipality.

2. Social need:

Finding real needs that make students interested and motivated (this should be related with plastics)

- ***What is the real need?***

The immediate need that can be addressed through various activities is to reduce the use of plastic on any level and in any form possible. We feel that a lot has been done on the level of theoretical knowledge and also some procedures and practices on the national, local and school level, but further steps must be taken to bring our awareness, attitude to and use of plastic (or rather the absence of it!) to a new level.

- **What are the actors affected for this need?**

School/centre and the municipality; possibly the Triglav National Park who has been a long-term partner.

- **Why is this need important or motivating for students?**

As students of the Nature Conservation course, they have been encouraged for years to take part in initiatives, activities, mobilities and more that are targeted at making real changes towards a more sustainable lifestyle.

- **How can students contribute to cover this need?**

They can help define the need in their local community/home, school ...; and plan and carry out activities. By involving the students from step one we hope to instil the sense of ownership and intrinsic motivation which should in turn bring about meaningful and lasting results.

- **Which are the needed actors for work with this need? (City hall, NGO's, enterprises.)**

See above.

3. The service to be performed:

Choosing the tasks to be performed by the students.

- **Define the specific actions and task will be performed by the students.**

Finding out which stakeholders and decision-makers can help bring about the change/address social need, approach them and develop a step-by-step plan of activities (e. g. getting rid of the plastic bottles in our school shop or meetings at the Municipality Office etc.). Finally, the students will be expected to produce an outcome (the form of which is to be decided/suggested by the students: posters, booklet, video etc.) in which they will present their activities and results while raising awareness at the centre and in the local community/-is.

- **For how long the students will work in the activities?**

Depending on the agreement between project partners we can carry out activities over a period of about three months and take another two or three months to organise the material and produce the final outcome. In the remaining time, we assume, meetings and presentations will be taking place.

- ***They will do some creative or artistic activities during the service?? Explain what and how.***

Again, we expect the students to suggest activities. However, over the years we have successfully used traditional and e-posters, poetry and story writing, painting, music and dance to address environmental topics (among others) – so these are likely to be included.

4. Learning objectives:

Skills, learnings, competences, values that the service will bring to the students.

- ***In which subject the activities will be included??***

Nature Conservation, English, Art.

- ***What is the curricular knowledge included in the project?***

- ***Nature Conservation:*** *Will be discussed with Nature Conservation teachers.*

- ***Art:*** *Learning about Pop-art and using waste materials to create works of art*

- ***English:*** *Acquiring advanced vocabulary in the field of sustainability and nature conservation; developing speaking and presentation skills in the foreign language*

- ***What are the skills and competences included in the project?***

MULTILINGUAL COMPETENCE:

- *advanced vocabulary in the field of sustainable development and care for the environment*

- *reading, understanding and producing texts in the foreign language (presentation skills)*

PERSONAL, SOCIAL & LEARNING TO LEARN COMPETENCE:

- *goal-setting*

- *critical reflection*

- *developing strategies for healthy mind, body, lifestyle and environment*

CIVIC COMPETENCE:

- *engaging with others in public domain*

- *solving problems affecting local and wider community*

- *participating constructively in community activities*

ENTREPRENEURSHIP COMPETENCE:

- *strategic thinking and problem solving*
- *managing projects (planning, organising)*
- *effective communication and negotiations*
- *collaboration*

CULTURAL AWARENESS AND EXPRESSION COMPETENCE:

- *communication (communicating ideas with texts, film, dance, art and design)*
- *creativity (engaging in creative processes)*

<https://www.eursec.eu/BasicTexts/2018-09-D-69-en-1.pdf>

4.2 The partnerships

5. Identify the partners ... with which we could collaborate in the project.

We will address our partner schools abroad, local municipality offices and local businesses to join us in the attempt to reduce the use of plastics wherever, whenever and in any way possible. We will approach them with the short questionnaire below in order to establish bonds between young people (environment conservation students) and local communities and businesses but also raise awareness and encourage stake-holders in the local environment to take further steps in reducing the use of plastics.

QUESTIONNAIRE

1. Please, briefly describe 2 – 3 activities or measures you have been using to reduce the use of plastics at your institution.
2. Have you faced any obstacles introducing the measures and changes? Have you been successful or praised – what is the feedback of your students/staff/community/environment?
3. Are you planning to take any further measures? What are they?

6. Establish a clear and concrete relationship with the chosen entity and come to an agreement, about the service that the young people will perform.

Young people will approach the above-mentioned entities in person, in writing or via the phone to obtain answers to the questions describing best practices in their organisations along with photos illustrating them. At the same time, they will attempt to introduce the same changes and plan further steps in their own organisation, i.e., school.

4.3 Project planning

The students are going to address the use of plastics at school, at home and in the local community in various ways proposed not least by themselves throughout the course of the project. They are going to raise awareness through reusing plastics in the art class.

Students will become aware of the real problem in their environment. They will research the topic and find specific information about it. They will make an exhibition to review what they have learnt and present their findings to their peers, employees and visitors of the school. In this way they will take responsibility for their actions while learning some information and develop linguistic skills in English.

They will eventually take part in a student exchange, meeting their peers from the countries involved in the project and learning about the situation and their activities in the project.

The management will be taken care of the English teacher in close alliance with a small team of students who have shown the keenest interest in the topic.

4.3 Implementation





An extensive report on the activities associated with plastics can be found in our school magazine below. More reports on the activities carried out in the final part of the project in 2022-23 will be published in the spring issue which is planned for June 2023.

http://www.bc-naklo.si/fileadmin/srednja_sola/krozki/TSITL_12_20062022.pdf

4.4 Evaluation with students

Students report on their achievements in the field of reducing the use of plastics and influencing their family members, even their family businesses, and friends. It can be said that a lot of awareness has been raised and indeed, a new lifestyle has been adopted by many individuals who now regularly pay attention to the unnecessary plastics in our environment and daily life while routinely using glass and aluminium bottles, their own mugs instead of plastic cups, avoiding packaging and adopting an overall more sustainable way of life. By far the greatest value, however, is their enthusiasm about the exchanges and mobilities which never fails. Regardless of the countries they travel to or even if they meet their peers from other countries 'at home', that is, in their own country.

From now on we only use paper straws and we are happy that we can help the environment. Zoja

We haven't bought any new plastic bags since New Year and the amount of plastic trash has decreased by about a quarter. Saša

So, from now on, I go to my climbing training by bike twice a week and I really enjoy it. Teja

The result is that we don't have as many plastic bags at home as we used to have. My mum is very grateful because there is less junk. Pia


It was actually a Valentine's Day gift and I was really happy to get something nice and sustainable instead of plastic junk. I use a lot of hand-picked herbs to make tea and that's really good for my health. Larisa

We're really proud that we made it to school by bike – it's not that close and you have to climb several hills to get here. Ela, Zala, Meta

I'm so proud that grown-ups listened to me and made changes in the municipality office! Blaž

I didn't know that many local events already follow a very sustainable policy: they don't use plastic glasses and they serve finger-food on edible 'plates'! Tomaž

It is amazing that two teenagers from different countries, who have never met before, can collaborate so successfully on a project and create such great art together. I think these mobilities are really not so much about plastics (or any other topic) as they are about communication. I wish I'd had such an opportunity as a student. Boris, teacher



We had a really fun time. We loved meeting people from other countries. We enjoyed spending time with new friends and made new memories with them. Eva & Larisa

4.5 Multifocal evaluation

The students have developed a high level of awareness on the problems caused by plastics in our environment. They have integrated this awareness into their daily practices starting to use glass bottles and bamboo toothbrushes but, more importantly, they now constantly observe how plastics is (over)used and suggest alternative solutions. They have upgraded their research skills, presentation skills (posters, Ppts, presenting in front of a group) and acquired a high level of vocabulary associated with the topic (plastic pollution, 3Rs, causes & consequences & solutions ...). As per usual some students have been more active than others but even the shy ones have had plenty of opportunities to show their strong suits and, in the on-site mobility, hang-out and collaborate with their peers from other countries.

Networking with the entities requires a lot of time and patience which should be taken into consideration in the next occasion. Likewise, we would benefit from more structured time to work on the project with the students outside of our regular (English) classes. Collaboration with colleagues should be encouraged by the management by specifying exactly the rewards they can expect in terms of acknowledging the time and effort spent on the project. It is otherwise very difficult to expect anyone to take part, support the co-ordinator and involve more students.

There was no lack of service training and the planning was adequate, however, the unexpected (school activities, absences) occasionally caused a delay in and reduction of activities. Lack of acknowledgement also meant that few teachers were interested in taking part in the project and/or only did so on a one-time basis. While the communication with the entities, once established, was amicable, they had to be reminded over and over again to send the material (in appropriate quality) and the turnout was poor.

4.6 Testimonials

Some examples of testimonials are as follows:

Teachers

It is amazing that two teenagers from different countries, who have never met before, can collaborate so successfully on a project and create such great art together. I think these mobilities are really not so much about plastics (or any other topic) as they are about communication. I wish I'd had such an opportunity as a student. Boris, teacher

Students

From now on we only use paper straws and we are happy that we can help the environment. Zoja

We haven't bought any new plastic bags since New Year and the amount of plastic trash has decreased by about a quarter. Saša

I'm so proud that grown-ups listened to me and made changes in the municipality office! Blaž


I didn't know that many local events already follow a very sustainable policy: they don't use plastic glasses and they serve finger-food on edible 'plates'! Tomaž

We had a really fun time. We loved meeting people from other countries. We enjoyed spending time with new friends and made new memories with them. Eva & Larisa

Others

Throughout the process or project, we have come to realise that involving stakeholders in the local environment requires a lot of time, patience and 'nurturing' in itself. It should be considered a success if you even manage to motivate them to examine and report on their anti-plastic activities and initiatives, let alone if they agree to take some further steps and report on them. People in institutions these days are very busy and find it hard to sustain collaboration over a longer period of time, more so if they find no immediate benefits in the project for themselves or their institution. That is why – having collected the responses, reports and photos we did not even attempt to send out evaluation questionnaires or require any other form of feedback.

Finally, it can be said that ReLearn Plastics at BC Naklo – Secondary School has not been a project for the purpose of the project itself, it has been way more. While a shift in attitudes, beliefs and behaviours is already obvious, these will be further developed and upgraded in the future. A lot has been learnt in how to enhance service learning, establish and develop contacts with the local community and how to



develop and sustain more environment-friendly practices focused on reducing the impact of plastics in the environment.