# Environmental education by various activities

(Intellectual Output)

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Content

# INTRODUCTION

In today's world, the positive relationship to the environment is very important, as we often face inappropriate behaviour of individuals as well as inappropriate human activity on nature and our own space in which we live. This socio-cultural problem transcends national or regional boundaries, in essence, it has diverse and distinctive features, its impact has more than European dimension. One way to eliminate and get rid of negative attitudes to the environment is by educating pupils at schools. Also, the current problem is that environmental education is often absent in the school education system. This subject is taught only in a small number of schools and does not belong to the main school subjects. In this work we will therefore focus on various activities and forms of work that have environmental nature. We offer opportunities to enrich learning plans into school curricula at schools that do not have environmental education subject in their school portfolio. We will show how to increase students' competences and skills and to activate them more actively during lessons and lead them to a positive relationship to nature and to protect the environment.

Work could be divided into two parts. In the first part, we offer structures of lessons focused on environmental education. We use the CLIL teaching method in describing the structure of the teaching units, through which we use methods of teaching English for environmental education. In addition to CLIL, we also offer other options to implement environmental education in the teaching process of other subjects so that pupils get a positive relationship to environmental protection and gain greater competencies in ecology and environmental topics. Each lesson structure is supplemented with various supporting materials and worksheets.

In the second part of the work we offer the way how to organize an event - a school event, which is of an environmental nature and through which pupils present their abilities and skills in this field. Many of the event-related activities have an activating character using their knowledge acquired during classes. These activities also support pupil creativity and raise awareness of the importance of protecting the environment. A suitable learning method for organizing such events is the principles of non-formal learning, which are described in more details in this section. This way of

teaching is suitable for all types of schools, even those in which environmental education is absent. With simple tasks, pupils are actively involved in these environmental activities and have a positive attitude towards the environment.

In conclusion, we summarize the pedagogical reflection of the teaching method CLIL during lessons as well as the benefits of non-formal education and above all their contribution, which has not only the environmental dimension, but also enhances the students' competencies and mainly builds a positive relationship to the environment and nature protection.

***"When the last tree is cut and the last fish killed, the last river poisoned, then you will see that you can't eat money."***

**John May**

## 1 WORKING METHODS DURING THE LESSONS WITH ENVIRONMENTAL TOPICS

Environmental education does not usually form an integral part of school education programs, it is a marginal educational subject even though it is a general fact that today we speak about its importance, and it is also an indispensable part of the community at the present time, and at the same time there is a strong need of improving our everyday life. Protection of nature and the environment is a popular topic today despite the fact that we do not pay much attention to it in schools. In this work, we want to point out how it is possible to implement environmental issues into teaching subjects despite the fact that environmental education is not included in the obligatory or optional subjects at many schools. The successful introduction of environmental issues into the learning process is useful also by CLIL (content and language integrated learning) learning method through which we can apply environmental issues to other subjects. Such subjects may include, for example, English, Mathematics, Art, Natural Science,

History, Geography but also other subjects such as Physical education, Technics or Music and so on.

In the following section, we will present 15 lesson structures created by common effort of schools participating in this project, which have distinctly different planning structures of the lessons, a different methodology and the nature in the teaching process itself. It is interesting to see how the structures of the given lessons are designed despite the obvious differences in the country's methodology. Each country has prepared three lesson structures. The following countries have participated in the creation of these structures: Slovakia, Spain, Estonia, Italy and Portugal. Using different methods, we have developed individual lesson structures that can be implemented into our own school environments or adapted and adjusted with our own school system with its typical forms and characteristic features according to national educational curriculum.

Appropriate methods and forms of teaching process include, for example, a "directed interview" that teachers can use to highlight the importance of environmental protection, nature protection, healthy living, and so on. These methods are shown, for example, in the teaching curriculum developed by the Slovak and Spanish schools - (see pages 20 and 23). It is important for the teacher to lead pupils to the environmental issue and to create a positive relationship to the subject. When for instance explaining the problematics of waters and water flows during Geography lesson, it is important to mention the need to protect the environment, the rivers, the seas and the oceans through a directed conversation with pupils. Another suitable method is to work with the written texts and the so-called reading comprehension. The students work with text related to environmental issues and they actively work with the given text through various tasks and activities. This method is mentioned in some teaching structures, for example, on page 9 (*fairy tale*), page 14 (*The story about Slovakia*), texts given by Estonian school concerning the environmental protection on page 46-47, and on page 53, there is a text about *Cleaning the countryside*. Teachers intentionally choose a suitable subject and appropriate text with an environmental theme when teaching a foreign language, in which the pupil does not come into contact only with grammatical categories but also with appropriately designed texts that solve environmental problems. The "*Learning by doing*" method, freely translated as *I observe, learn and do it with my own hands*, is

very important in the current learning process as the pupils acquire their skills directly in performing practical tasks. These methods are presented in the teaching structures on page 56 where is explained in details the techniques how to make own paper given by Italian school. Among the subject relationships, it is important to incorporate various other activities that have an environmental dimension, a suitable form is a competition or a game that has been elaborated in detail by an Italian school (see page 56), the game is about a waste separation. By physical activity during physical education, we can grow and motivate pupils for other activities related to environmental issues. In some phases of the teaching process, it is appropriate to fill the space with a song (presented by Portugal school) which also has an environmental nature, and the learners, through frequent listening, build a positive relationship towards the nature, its protection and a positive relationship towards the environment.

All these methods of work, as well as their forms or practices (directed interview, learning by doing, texts work, reading comprehension, play, competition, songs, etc.) are suitable for implementation into any lesson with non-environmental issues. It also depends on the imagination and creativity of the pedagogue and its relation to the subject. Many of these methods have an activating character and lead pupils to higher engagement during lessons. In the following section, we describe all lesson structures respectively.

## 2 THE STRUCTURES OF LESSONS (Environmental topic)

### 2.1 English – 4th class (Slovakia)

**Subject:** English

**Class**: fourth

**Topic unit**: Man and nature

**Theme**: The Weather

**Language aim**: Pupils acquire and consolidate words: sunny, sun, cloudy, windy, snowing, snow, raining, cold, hot, summer, spring, winter, autumn....

They practise the use of sentence structures: **It is..... and question: What is the weather like ?**

**Cognitive aims:** know to describe the weather conditions in a grammatical structure:

It is....

Ask question: What is the weather like?

**Affective aims:** Respect each other and cooperate.

Create a positive relationship towards the nature and protect it.

Understand the importance of protecting the environment, its impact on weather changes.

**Psychomotor aims**: Focus on the map.

Assign thumbnails to images and vice versa.

Work in a worksheet.

**Materials**: map, pictures, worksheet, cards

*Structure of the lesson:*

**Organizational part of the class:** teacher's arrival in the classroom, enrollment in the classroom

**Introductory part of the lesson:** At the beginning of the lesson, we repeat the lesson from the previous lesson - the seasons. Pupils name the seasons according to the cards and assign names to the pictures. The teacher explains the importance of alternating seasons for life in nature (leads a discussion with pupils).

**Motivation:** The teacher reads the story of Princess Rosnička

**Story**

Once upon a time, there was a fairy landscape in which the young beautiful Princess Rosnička lived and successfully forecasted the weather every morning. People admired and loved her for it. But one day, this princess was taken by the evil witch and told everyone that the princess would come back within a year time if anyone find a replacement for her who will predict the weather instead of her. You must try to become the substitute now and you will play her role – you become new Rosnička to save her.

**Main part of the lesson:**

After reading the story, the teacher demonstrates the new words and show them slowly the weather pictures.

The pupils observe the pictures the teacher explains them and ask the pupils: What is the weather like? The pupils respond: (It's windy, it's snowing, it's sunny, it's raining, it's hot, it's cold, it's cloudy ....).

Now we're going to play on Rosnička and we'll predict the weather in the world. On the blackboard we have a map of the world where the weather is different (pictures of the weather and the names of the countries). Teacher asks a pupil to predict weather in the world, for example: In Turkey it´s sunny and hot.... The teacher can ask the question: What is the weather like in Turkey? Then the weather images can change (weather for the following days). Finally, they can say what the weather is today. In the end, the pupils attach to each season a weather card that belongs to them, for example:

Summer: It is sunny. It is hot. .....

SPRING SUMMER

AUTUMN WINTER

**Cards with sentences**: It's windy. It's hot. It is sunny. It's cold. It's raining. It's snowing. It's cloudy.....

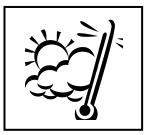
Teacher explains pupils the importance of environmental protection and its impact on weather changes. The pupils also expresses their views on the importance of water (rain) and the sun for life.

**Fixing part of the lesson**:

Pupils can fill in worksheet on the subject of weather and then work with it. At the end of the lesson, the teacher re-produces the curriculum by asking questions. Teacher makes an evaluation and gives them a homework.

**Working sheet to the weather topic:**

1. What is the weather like? Add the correct phrase to the images (cloudy, cold, snowing, sunny, hot, windy):

a  b  c  d  e  f 

a) ..... b) ..... c) ..... d) .....

e) ..... f) .....

2. Add missing words to sentences:

a) ..... is the weather like?

b) ..... is cloudy.

c) It..... cold.

d) It ..... sunny.

3. Draw the weather today

**WEATHER**

In Antarctica  it´s snowing

and in Africa it´s hot.

In England  the wind is blowing,

and in Italy it´s not.

In Turkey the sun is shining,

and in Florida  the sky is blue.

In Poland  now it´s raining,

and in Austria it´s rainy too.

What´s the weather like in the picture?

_____

_____

_____

**Answer:**

Is it sunny in Poland?

_____

What colour is the sky in Florida?

_____

Is it raining in Austria?

_____

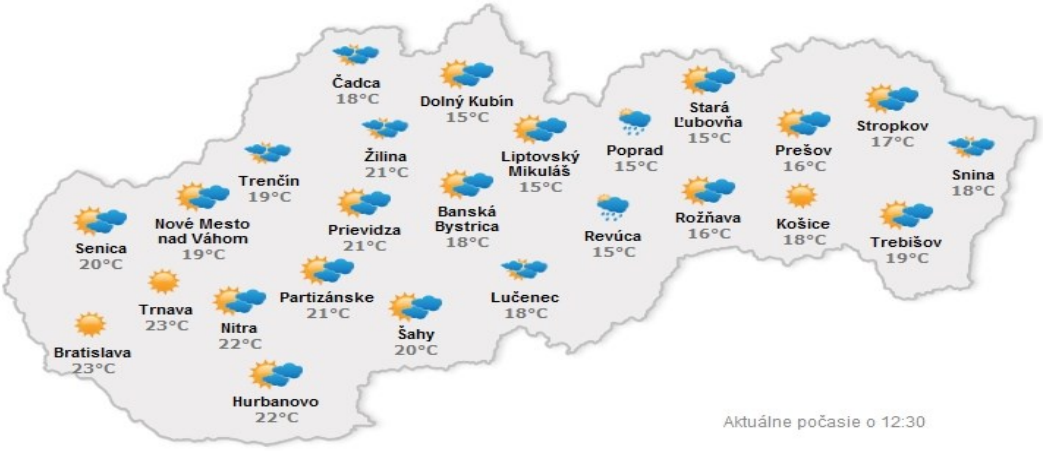
Is the wind blowing in Antarctica?

_____

Look  and write, what´s the weather like today?

_____

**What´s the weather like?**




**1.**
**Where is sunny?**

In.....

**Where is cloudy?**

In.....

**Where is raining?**

In.....

**2. What ´s the weather like? Write.**

It is…….

It is .....

The …….. is blowing. It is……..

It is……It is cold.

## 2.2 Nature – 3rd class (Slovakia)

**Subject:** Nature (method CLIL)

**Class**: third

**Thematic unit**: Let´s discover Slovakia

**Topic**: Rivers – a gift of life

**Content aim:** The most famous Slovak rivers, dams, lakes

**Language aim**: Pupils learn and consolidate new words: river, dam, stream, lake, raindrop. They practise the use of grammar constructions:

It is .....

It is not .....

**Competences:** Know how to name and show on the map the most famous rivers in Slovakia. Be able to explain and identify dams and lakes.

**Materials: map, pictures, words, worksheet, data projector**

**Structure of the lesson:**

**Organizational part of the class**: teacher's arrival in the classroom, enrollment in the classroom

**Introductory part of the lesson**: At the beginning of the lesson we repeat the lesson from the previous lesson. We will repeat together what are protected areas which we know in Slovakia. Pupils will show on a map where the protected areas are located.

**Motivation:** The teacher explains that in Slovakia we have not only the mountains, but also the rivers and today they learn about them. The teacher begins to read the story.

**Story**

Once upon a time there was a beautiful country called Slovakia. The landscape was beautiful full of colors, there were many rivers, meadows but also hills. In that beautiful country, the river was the name of the Danube. At the bank of the river, Jane, a small jade, was just relaxing. She knew the whole world, and now she also knew Slovakia, she found herself in the river Danube. She likes it very much, it was clean and the river was beautiful for the rain drop, but the Nile river is the longest river in the world. That's why Jane decided to see all the rivers in Slovakia and find out which is the longest river in Slovakia and wants to know the dams that can be found in Slovakia. She already knew the Danube, so she decided to go further .....

After reading the story, the teacher asks the pupil questions: Who was the main character of the story? Where did the droplet travel to? Where has she been to yet?

**Main part of the lesson:**

After a brief conversation, the teacher takes a new curriculum and shows the images of the river, the stream, the dam and the lake through the dataprojector. The teacher continues and asks the pupils, what is the difference between the pond and the lake, between the dam and the river.

The pupils observe the images the teacher uses the projector and loudly talks (It is a river, It is a dam, It is a stream, It is a lake) and river ..... It's a stream .....)

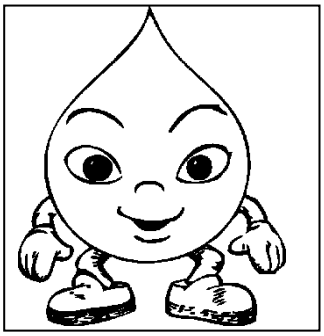
*Picture 2*

***a river  a dam***

*Picture 3*

***a river stream*** ***a lake***

They repeat the new vocabulary, the teacher keeps the correct pronunciation. The teacher takes the story of the Jane droplet. He shows the droplet and he reads. This is our rain drop Jane.



*Picture 4*

(It's a raindrop. Her name is Jane). The teacher moves the rain drop into the river and asks the pupils (Where is the raindrop?). Pupils respond (It is a river). Gradually teacher moves a rain drop to each picture and asks students (Where is the raindrop .... It's a river dam.....)

After repeating the words and new vocabulary: river dam, lake and current, showing the map of Slovakia. Each pupil has a small map in front of him / her. They are observing Slovak rivers.

Rivers *(Dunaj,Váh,Morava,Myjava,Hron,Hornád.....Bodrog,Latorica,Ondava)*

*Picture 5*

Teacher talks to pupils and together they search for Slovak rivers in eastern Slovakia, in the west of Slovakia and also in Central part of Slovakia. If the pupils already know the rivers, the teacher shares the worksheet to the pupils. The teacher reads the tasks in the worksheet, then the pupils work independently. In the first activity, the pupils search for Slovak rivers and circles them. In the second task, pupils have to write Slovak rivers, which they have previously searched on the map. In the third task, the pupils read the following sentences and write the statements (True or False)

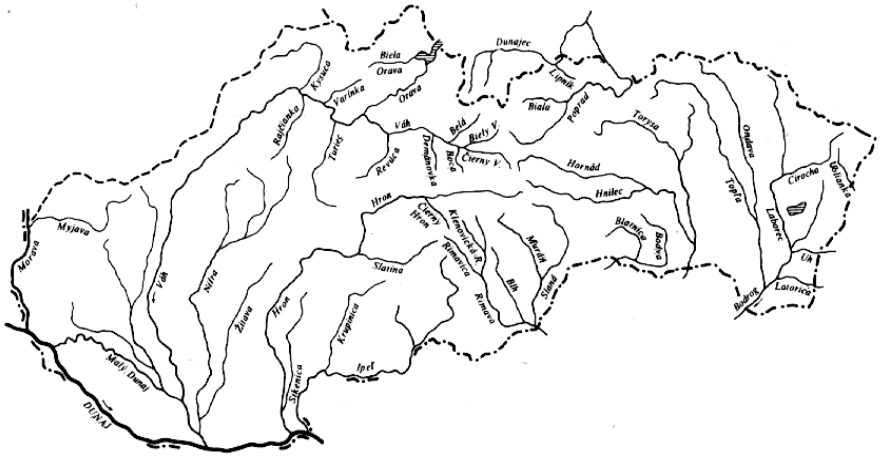
Note: In the framework of environmental education, during the main part of the lesson we have a conversation about:

- the importance of water for life in nature,
- the problem of water pollution in Slovakia,
- the need to protect and enhance the environment

***Worksheet***

*Name.....*

***1.Find the rivers and circle the rivers***




***2.Write five Slovak rivers .....***

***3. Read and write : True(T or false/F/***

| | |
|---|---|
| *The Vah is a Slovak river* | |
| *The Dunaj is a Slovak river.* | |
| *The Nile is a Slovak river.* | |
| *The Domasa is a Slovak river dam.* | |
| *The Tatry are a Slovak river.* | |

**Final part of the lesson:** At the end of the lesson, the teacher repeats the new vocabulary by means of supportive questions. Teacher makes an evaluation and gives them a homework.

## 2.3 Geography – 9th class (Slovakia)

**Subject:** Geography
**Class:** ninth
**Thematic unit:** Structure of Slovakia
**Topic:** Protection of the nature

**A. Cognitive aim:**

*1. Remembering the knowledge*

a) to designate the types of protected areas in Slovakia

b) write the national parks of Slovakia

c) find protected areas on the map

*2. Understanding of knowledge*

a) to describe the nature protection methods in the different types of protected areas

b) to explain what nature protection aims are

c) Explain what NATURA 2000 is

*3. Using knowledge in typical school situations (specific transfer)*

a) decide whether the plant, animal and soil altogether could belong to one vegetation stage

*4. Using knowledge in problem situations (non-specific transfer)*

a) assess the impact of uranium mining on the environment

b) to assess what is the biggest ecological problem of Slovakia and to defend its claim

**B. Psychomotor aim**

*a) to orientate on the map of Slovakia*

**C. Affective aim**

a) to respect each other in the group and to cooperate

b) Recognize nature conservation issues and design ways solutions

**Schedule of the lesson stages:**

**1. Organizational part:** Writing in the classroom.

**2. Presentation of learning goals**

Talking to pupils about new things they learn today during the lesson. Explanation of requirements for pupils.

**3. Revision**

Didactic play on topic: Plant, Animal and Soil of Slovakia.

The teacher will prepare papers with different types of plants, animals, and soil types. At least as many papers as possible are pupils in the class (note: because soil types are less, each type is written at least three papers). Papers of each category are placed in a special envelope. Pupils pull one paper from the envelope with plants, one of the animals and one of the soils. Subsequently, everyone will think whether these three might work together (based on the lessons learned of the vegetation stages and what it may be). The teacher then invokes the pupils and asks for their views. Pupils have to justify their arguments. If they do not know or if they are mistaken, other pupil can answer this question.

**4. Motivation (discussion):**

Problem as motivation / discussion: Students in the class create a circle from chairs. The teacher will become a moderator of the discussion on the theme: Uranium mining in Košice, Slovakia. This problem has been dealt since 2005 and has made a big deal in the company. The teacher therefore summarizes the essence of the problem, the position of the mining company and the mining opponents. It invites pupils to present their views. Encourages dialogue and arguments formulation in pupils. The discussion should take about 10 minutes. There is no winner in the discussion, it is important that the views and logical arguments are presented.

The teacher then proceeds to the new curriculum - nature protection in Slovakia.

**5. Learning new topic**

Interview: The teacher teaches students what is the purpose of nature protection, and what everything can be protected. He talks with the pupils about the topic and encourages their activity. He also writes the abbreviations of protected areas in Slovakia (eg NP, CHKO, PR, etc.) on the board and asks if they have already encountered these abbreviations (we assume that yes) what these abbreviations mean. Next, they ask for specific territories - what they actually protect, how they differ. If the pupils do not know the answers, the teacher will complete this information.

Working with the map: pupils are given the role of finding examples of protected areas for each type of protected area. Pupils write down their findings, then the teacher invites them to come to the given territory to show up on the wall map of Slovakia.

INSERT method: The teacher gives the pupil texts about the NATURA 2000 protected area. He explains them and writes the symbols on which they will work in the text. If they reveal information that is known to them in the text, they give a symbol ✓, if they find something new for them, they will be +. If they find information that is inconsistent with what they know, they use the minus symbol. And for the information they want to find out more, they'll give a question mark. Pupils get 10 minutes to work with text, then present what information they already had, which were new, which were inconsistent with their previous knowledge and what they would like to learn. At this stage, the teacher goes on with explanation.

**6. Strengthening and evaluation (feedback)**

Presentations on Nature Protection related to their notes from exercise books

Assessment of goal achievement.

**7. Giving home homework**

Each pupil briefly formulates what is, in his opinion, the biggest environmental problem in Slovakia. At the next hour, students will present their own views and arguments.

## 2.4 Science – 6th class (Spain)

**School:** Escola Salvador Espriu, Montgat (Spain)

**Subject:** Science

**Class:** sixth

**Unit topic:** Renewable sources of energy

**Language aims:**

Pupils have to learn vocabulary about renewable energy sources and also vocabulary about different materials and art. Within the subject relations, pupils can repeat their English version:

(paint, glue, scissors, brush, cut, stick, paper roll, newspaper…)

They practice grammatical structures such as:

- What will we need? We will need…
- Do we have it at school? Yes / No, we have it / we don't have it at school.
- Who will bring it? …. We will bring newspaper
- What are we going to do? Cut the card, glue the papers, paint the model...

**Cognitive aims:**

Be able to organize the following lesson by witting down the necessary materials and the steps to follow.

**Affective goals:**

Pupils must work in groups, so they must be able to show respect to one another and also have to be attentive to one another. They will work together to create a renewable energy model. They should know how this energy works and helps protect the environment.

**Structure of the lesson:**

At the beginning of the lesson, the teacher helps pupils to remember 5 renewable energy sources and their parts using pictures.

Then the pupils create the 4 groups in which they will work.

Each group pulls out one paper, which is the name of the renewable resource they need to work on.
The next step is to create your model concept in your group. They first have to fill in an "organizational table".
The model must be drawn on the paper to be completed.

Now work in a group and plan a procedure before you start making a renewable energy model. First, fill out the **organizational table:**

**Renewable energy source:**

**Group members:**

- -
- -

**Required materials + who does it bring?**

| | | |
|---|---|---|
| □…… ☐ we have it at school ☐ _____ (name of the member) | □…… ☐ we have it at school ☐ _____ (name of the member) | □…… ☐ we have it at school ☐ _____ (name of the member) |
| □…… ☐ we have it at school ☐ _____ (name of the member) | □…… ☐ we have it at school ☐ _____ (name of the member) | □…… ☐ we have it at school ☐ _____ (name of the member) |

**Organizing 3 sessions:**

**SESSION 1 Date: _____** **REMEMBER PAINT NEEDS TO DRY!!**

-
-
-

**SESSION 2 Date: _____** **REMEMBER PAINT NEEDS TO DRY!!**

-
-

| | |
|---|---|
| - | |
| **SESSION 3 Date: _____**<br>- Make tags with the name of the parts of the model (vocabulary worked).<br>- Make a small poster with the name of the renewable source of energy and the list of the members of the group. | |

## 2.5 Art – 5th class (Spain)

**School:** Escola Salvador Espriu, Montgat (Spain)

**Subject:** Art

**Class:** Fifth

**Thematic unit:** Land Art

**Topic:** What is Land Art? Artists

Learn about ephemeral artworks

**Language aims:** Students get familiar with natural materials vocabulary such as shells, sand, pebbles, twigs, fir cones and leaves.

Use there is/there are, We designed a…..

**Cognitive aims**: Know how to name natural materials and describe their works of art

Learn about artists that use natural materials

**Effective aims:** Learn to protect nature and environment.

Think of nature as a place to represent artworks.

**Psychomotor aims**:

Dividing and distributing elements in space

Connect art with doing

**Materials**: natural materials to make a piece of art, natural place to work such as the beach, a garden, a wood.

**Structure of the lesson:**

**Organizational part of the lesson**: Class routines

**Introductory part of the lesson:** The teacher proposes a brainstorming about natural materials to be used in art class and students look up the vocabulary in English in "Word reference ", either app or website.

**Motivation:**

Students try to guess what is "Land Art". Thinking about the meaning of both words, *Land* and *art.*

**Main part of the lesson:**

Students work in groups of four.

Firstly, students get a jumble sentence that explain what land art is and try to unjumble it.

It involves making art and sculptures using materials you find in nature

Secondly, students do a matching exercise about natural materials pictures and their name in English.

Leaves   Shells

Fir cones   Sand

Twigs   Pebbles

Students then learn about important artists of Land Art such as David Allen, Richard Shilling and Dietmar Voorwold. They check their works in a worksheet to get some ideas for the next step that will be designing in group an eco art sculpture or drawing.

Before starting their design they need to decide what materials to bring to class to do their work of eco art. After, they start designing their draft on a paper so that when we get outside they have an idea of what to do.

Students get also an explanation of how important is to return natural materials to nature to decompose.

**Fixing part of the lesson:**

Students get outside of school either to school garden or any natural place near school, in our case the beach to create their piece of art in groups of four. Then they take photos of their creations, because they are ephemereal, to make a Power Point Presentation or a photography exhibition of the process of creation in different steps:
-Gathering materials
-Designing a draft
-Eco art work at the beginning
-Final piece of art

They present the Power Point/exhibition to the class orally in English with the correct language

**Land Art Activity (worksheet)**

**GROUP MEMBERS NAMES**

**1----------**

**2----------**

**3----------**

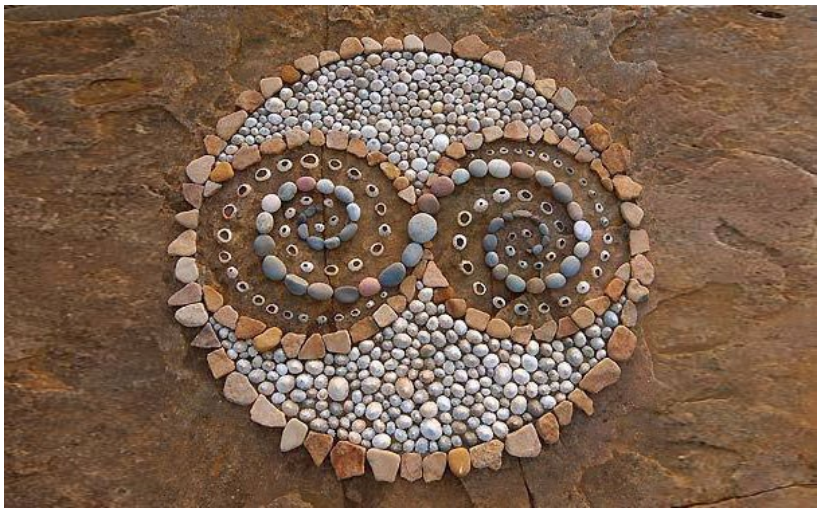
**4----------**

**MATERIALS: Tick what you need**

| | | |
|---|---|---|
| **Twigs** | **Pebbles** | **Sand** |
| **Shells** | **Leaves** | **Fir cones** |

**DESIGN YOUR PIECE OF LAND ART (Planning)**

**LAND ART - Artists**



German artist **Dietmar Voorwold** creates beautiful installations of land-based art equipment that only use natural materials in place such as gravel, rocks and leaves.

**David Allen** is an artist who leaves his natural sculptures in public natural spaces to find passers-by looking for inspiration.

**Richard Shilling:**

## 2.6 Physical education – 6th class (Spain)

**School:** Escola Salvador Espriu, Montgat, Spain
**Subject:** Physical Education
**Class:** Sixth
**Thematic Unit:** Physical activity and health
**Topic:** Healthy food

**Language aims:** pupils acquire and use the words such as:

- wholemeal cereals, bread and potatoes, pasta and rice; vegetable, salad and fruit; milk, yogurt and cheese; meat, poultry, fish, eggs, legumes and nuts; fats, oils and sweets; drinks high in sugar.
- The meals: breakfast, snack at school, lunch, tea, dinner.
- Starters, main course and desserts.
- Servings a day

**Pupils practise the use of grammatical structure such as:**

- What is it? It is …
- What is that?

**Cognitive aims:**

- Know how to list the different foods in order using for starters …,
- Ask a question: What did you eat yesterday for breakfast?

**Effective aims:**

- Work carefully when they are in a group.
- Promote healthy and balanced diet.
- Understand the importance of a healthy diet to keep health.

**Psychomotor aims:**

- Keep up with the music.
- Place yourself according to different spatial notions.

- Work out a poster for classifying foods

**Materials:** poster food pyramid, pictures of food, worksheet, hoops, music

**Structure of the lesson:**

**Introductory part of the lesson:**

At the beginning of the lesson, the teacher show the different pictures of foods and pupils have to name them. The teacher explains the variety of food there and it is important to eat everything.

**Motivation:**

Teacher says: Do you want to know if you eat healthy?
Please, fill the worksheet.

What did you eat yesterday?

- Breakfast: …….

- Snack……...

- Lunch

➔ Starter: …….

➔ Main course: ……...

➔ Dessert: ……...

- Tea: ……...

- Dinner: …….

……..

**Main part of the lesson**

- **1st activity**

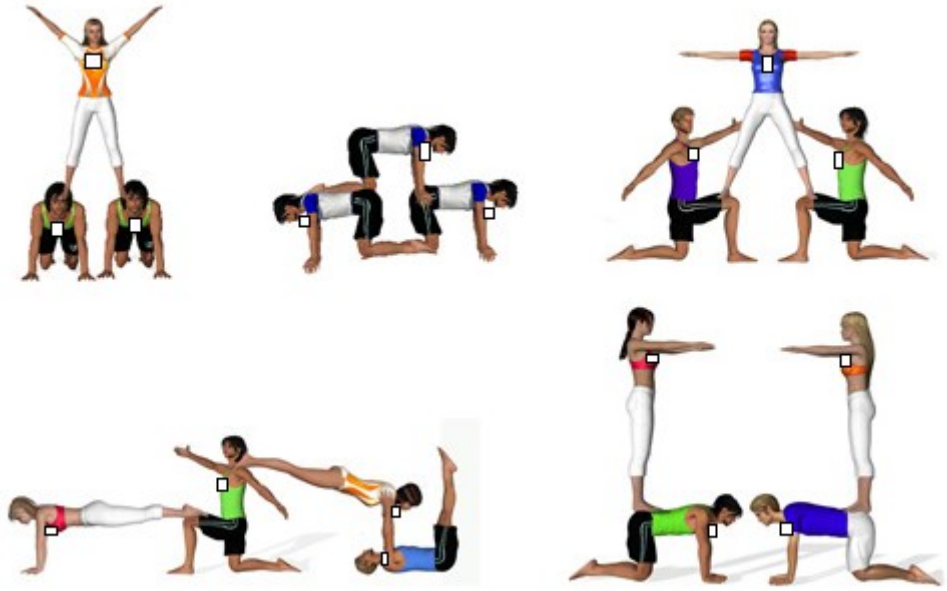
The pupils observe and read the big food pyramid on the poster. What means every colour? In groups of 4 people have to answer this question according to colour.


Teachers divide the pictures into groups and the pupils have to ask each other: "What is it / that?". They answer: "It's ..."

Then each group must match the food to the appropriate color. Pupils will see a large pyramid on the map again. Teacher asks: Is there any food associated with the wrong colour?

- **2nd activity**

The teacher delivers the pictures to every pupil, the pupils hold the picture in front of them. Then they have to keep up with music - the teacher says, "Create groups of two / three / four / ...". Pupils have to create groups of two, three, four according to the type of food creating the pyramids. If a pupil does not find a group, he / she needs to change the picture of the food and engages in the game only after another teacher's call:



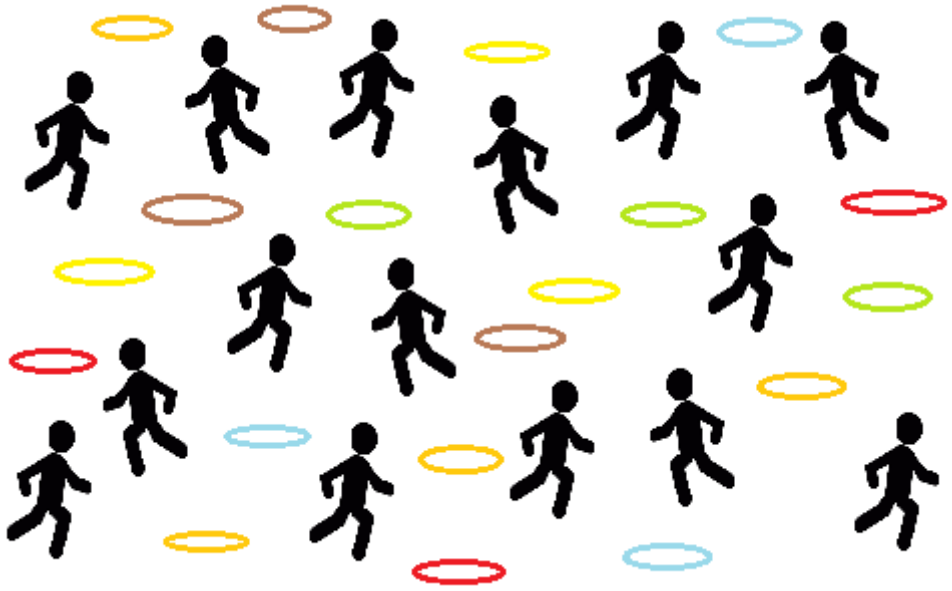
- 3rd activity

The secret code: hoops are placed everywhere in different colours:

➔ Brown: wholemeal cereals, bread and potatoes, pasta and rice
➔ green: vegetable, salad and fruit

- ➔ Blue: milk, yogurt and cheese
- ➔ Yellow: meat, poultry, fish, eggs, legumes and nuts
- ➔ Orange: fats, oils and sweets
- ➔ Red: drinks high in sugar

The teacher says a meal and the students must run between the hoops, and put a foot in the right hoop according to the group of foods. Remember the meal can have several ingredients.



Fixing part of the clock:

In pairs, the pupils complete the worksheet that they did at the beginning and answer the following questions:

What did you eat yesterday?

- Breakfast: …….

- Snack ……...

- Lunch

➔ Starter: …….

➔ Main course: ……...

➔ Dessert: ……...

- Tea: ……...

- Dinner: …….

  ……..

➢ Do you think the diet you wrote is healthy?

➢ What should you eat less?

- What should you eat more?

- Explain to your classmate what you should eat more and less. "According to the food pyramid, I should eat more ..."

## 2.7 English – 8th class (Estonia)

**School:** Orava School, Orava (Estonia)

**Subject:** English

**Class:** eighth

**Number of lessons:** 1

**Topic:** Let's protect our environment

**Aims of the lesson**:

- Introducing, practicing and extending the vocabulary about nature and environment;
- Describing the causes of environmental problems;
- Understanding pollution;
- Developing an understanding of the language associated with pollution and being environmentally aware;
- Describing the environmental impact of humans;
- Giving examples of ways of reducing, reusing, and recycling;
- Gaining better vocabulary learning habits and group discussions;
- Comparing and contrasting different opinions about a controversial topic and making a fact-based opinion about an environmental subject;
- Demonstrating attitudes and developing values of honesty and respect for environment.

**Procedure of the lesson:**

- Students will read the text: **Let´s protect our environment**
- As for a pairwork after reading students will discuss following questions displayed on board:

**Task 1:**

1. What is pollution?
2. What human activities cause pollution?
3. Have you ever littered or created pollution in some way?
4. What can you do to reduce the negative effect on nature?
5. What are the ways energy is wasted?
6. What is difference between reusing and recycling the materials?
7. What are the most important issues facing the environment today?

- The questions will also be discussed with other classmates.
- As for the next task students will find the correct words form mingled pieces of the following chart that is cut into pieces. Each pair gets one set. The words are from the text.

**Task 2.**

| | | | |
|---|---|---|---|
| rain | for | ests | |
| en | dan | ger | ed |
| pol | lu | tion | |
| harm | less | | |
| re | new | able | |
| ap | pli | ances | |
| con | tain | er | |
| re | cyc | ling | |

- After finding the correct words some students will explain the meaning for the rest of the class;

- The next task is based on text and there are words omitted form it. Students have to fill in the gaps without seeing the originaal text. Every student gets a copy of this task.

**Task 3.**

A plastic …….. left by the side of the road will have a longer life then the person who threw it there. A …….glass will stay in the …….. forever.

……. old newspapers. …… is made of trees, so when you save it you save trees and forests, too. Take glass bottles and aluminium …… to recycling ……. Organic waste, such as vegetable peelings and food …….. can be turned into …….

Re-use plastic shopping bags. Or, better still, use …….. bags and shopping baskets instead of getting a new …… bag every time you go shopping. Most plastic is made from ……., so when you save it, you save oil as well.

Every year in richer countries each person …….. away about 100 aluminium drink cans, 100 bottles or jars, 50 kg of plastic, a couple of big trees' worth of paper and 150 kg of food scraps.

Recycling saves energy and reduces the …….. to the environment. It also means that there is less waste to get rid of.

The world is now …….. than at any time since the last Ice Age. Scientists believe that in the future, temperature will rise even faster. This is called ……. warming or the greenhouse effect. Global warming is caused by a blanket of `…….. gases´ around the Earth. Gases trap the heat from the sun and thus make the Earth warmer. Carbon dioxide from …….. fuels is one of the main causes. Scientists say that this can upset the world's weather and cause floods, water …… and storms, If the Earth warms up too much, the polar …….. caps will start to melt and the level of the …….. and oceans will rise.

- After filling in the gaps students will read the text aloud sentence by sentence to check the answers.
- As for the final task there will be pairing of environmental words and definitions. Teacher cuts the following chart into pieaces and gives one set for each pair.

**Task 4.**

| | |
|---|---|
| endangered spieces | that have been categorized as very likely to become extinct |
| harmless | not able or not likely to cause harm |
| poison | a substance that can make people or animals ill or kill them if they eat or drink it |
| pollution | a damage caused to water, air, etc by harmful substances or waste |
| renewable energy | energy that is produced using the sun, wind, etc., or from crops, rather than using fuels such as oil or coal |
| energy-efficient | using little electricity, gas, etc |
| recycling | the process of collecting and changing old paper, glass, plastic, etc. so that it can be used again |
| greenhouse effect | an increase in the amount of carbon dioxide and other gases in the atmosphere (=mixture of gases around the earth), that is believed to be the cause of a gradual warming of the surface of the earth |

**Homework**:

- Reading the text again and memorising the vocabulary and understanding of the key phrases:
- Students will also do a home search to discover how many items in their home are recyclable and to make a list of them. If unsure, if it is recyclable, they will do an Internet search.

**Assessment and evaluation:**

- Final written report about environmental issues based on the text read (approximately 120 words) with a short three-four sentence explanation for each term identified from previous lesson.

**Let's protect our environment – Text (reading comprehension)**

## The environment

There are between five and thirty million plant and animal spieces in the world. Most of them live in the rainforests that grow near the equator. Scientists estimate that up to half of them could die out within next sixty years. Thousands of plants and animals are now officially classified as endangered.

Animals, cars, people and factories all produce waste. This is not a problem if the amount of waste is small and it can break down to become harmless part of the soil, sea, or air. But when there is too much waste, or when the waste contains poisons, it pollutes the environment.

## Save energy

We depend on energy for almost everything we do. Factories, farms, houses and vehicles all need power to make them work. Fossil fuels – coal, oil and gas – provide most of the world's energy. But this doesn't come for free. The burning of fossil fuels causes air pollution and acid rain and adds to global warming. Acid rain can travel thousands of kilometres, so pollution in one country can become acid rain in another. It can cause serious damage to lakes, rivers, forests and buildings.

Nuclear power produces otheer hazards such as radiation leaks and nuclear waste.

Many natural resources are not renewable. That's why energy conservation is very important. But we also have to find alternative ways to make energy. Good examples of renewable energy already in action are solar panels and wind farms with modern windmills.

Cookers, heaters and many other things in our homes use electric energy. This is usually made by burning oil, gas or coal. Turn off lights and electric appliances when you are not using them. Open the fridge door as little as possible. When warm gets in extra electricity is needed to cool it down again. Fit your lamps with energy-efficient light bulbs. When you buy new appliances like washing machines, TV sets or fridges, always ask for energy-efficient models.

## Save water

Every year each of us uses about 45,000 litres of water, enough to fill more than a tanker lorry. Run dishwashers and washing machines on full loads. Use the minimum flush on dual-flush toilets. If you can, save water by taking a shower instead of a bath.

**Cut down on waste and litter**

A plastic container left by the side of the road will have a longer life then the person who threw it there. A broken glass will stay in the soil forever.

Recycle old newspapers. Paper is made of trees, so when you save it you save trees and forests, too. Take glass bottles and aluminium cans to recycling banks. Organic waste, such as vegetable peelings and food scraps can be turned into compost.

Re-use plastic shopping bags. Or, better still, use canvas bags and shopping baskets instead of getting a new plastic bag every time you go shopping. Most plastic is made from oil, so when you save it, you save oil as well.

Every year in richer countries each person throws away about 100 aluminium drink cans, 100 bottles or jars, 50 kg of plastic, a couple of big trees' worth of paper and 150 kg of food scraps.

Recycling saves energy and reduces the damage to the environment. It also means that there is less waste to get rid of.

**Global warming**

The world is now warmer than at any time since the last Ice Age. Scientists believe that in the future, temperature will rise even faster. This is called global warming or the greenhouse effect. Global warming is caused by a blanket of `greenhouse gases´ around the Earth. Gases trap the heat from the sun and thus make the Earth warmer. Carbon dioxide from fossil fuels is one of the main causes. Scientists say that this can upset the world's weather and cause floods, water shortages and storms, If the Earth warms up too much, the polar ice caps will start to melt and the level of the seas and oceans will rise.

based on texts from Key 9 Text Book by Airik E. et

## 2.8 Geogaphy – 6th class (Estonia)

**School:** Orava School, Orava (Estonia)

**Subject:** Geography

**Class:** sixth

**Number of lessons:** 3

**Topic:** Foreigners in my town

**Place:** 1st lesson in computer room, 2nd class, 3rd lesson outside school building - in town, on street

**Objective of the lesson:** To learn vocabulary of orientation in the city; to study the map of the home city and to accompany tourists around the city, ie to provide instructions on how to get from one place to another. Point to the negative impact of public transport.

**Aims**:

**Students will:**

- know the vocabulary of cities
- know the prepositions of the place
- know the vocabulary, if they will give advice and information about the orientation in the city
- know how to use the map
- ready to direct aliens and show them the direction they need
- use web pages to retrieve new vocabulary
- awareness of the negative impact of public transport on the environment

**Learning skills**

**Cognitive skills:**

- recognition and interpretation
- remembering
- Image and map visualization
- decision-making and problem solving

**Basic language learning skills:**

- Listening skills

**Socal skills:**

- Interaction and communication skills;
- presentation skills.
- IT-skills

**Materials:**

Online based tasks, handouts and vocabulary lists provided by teacher

**A. Introduction and Practice:**

During the first lesson, students repeat, learn and test their vocabulary knowledge verbally and in an interactive way. Students are first given the task of remembering as many different buildings as possible in their home town. During the second lesson, there are examples of places and phrases with prepositions of places. The second task is to use the internet links, and to test vocabulary in a playing mode via application Quizlet:

- https://quizlet.com/_51q61x https://quizlet.com/_51q6qk

- Students revise prepositions of place using the handout with the tasks:

Hometask after the1st lesson is to revise all vocabulary learned in the lesson.

**B. The second lesson:** begins by repeating everything they learned in the previous hour. Pupils ask about the location of buildings, landmarks in the city, and give directions how to navigate the city and how to get there.

Pupils are divided into groups of three pupils. They use a picture of their city (they can also search through a website

https://www.google.co.uk/maps

Groupwork in groups of three students. There is a map of students' home town (Põlva in Estonia in the example) on the screen. Students ask each other in small groups how to go from one place to another. The fellow students have to explain the way:

https://www.google.ee/maps/@58.0536231,27.0519129,16.25z?hl=et (map Põlva)

**C. Outside the school building**

The teacher, along with pupils, goes to the streets of the city and plays different situations asking them how to get in, the classmates answer and give them instructions.

**Role:** Pupils must ask questions directly on the street, both passers-by and tourists, have the opportunity to practice their own knowledge directly in practice. Pupils gain direct experience and apply them directly in practice. They will create a homework project in which they present their experiences and develop a simulated conversation about city orientation and guidance.

**Environmental education:** the teacher, on the basis of a controlled interview with pupils, talks about the negative impact of public transport on the environment. It remembers all the appropriate forms and opportunities for moving around the city that are environmentally friendly. Students will write about the benefits of using bicycles and walking around the city.

**Evaluation:**

Pupils receive grades by:

1. his / her knowledge (vocabulary of the given topic)
2. group work in class
3. practical skills demonstrated outside the class
4. final project work

**Prepositions of places** (worksheet)

1. He’s swimming _____ the river.
2. Where’s Julie? She’s _____ school.
3. The plant is _____ the table.
4. There is a spider _____ the bath.
5. Please put those apples _____ the bowl.
6. Frank is _____ holiday for three weeks.
7. There are two pockets _____ this bag.
8. I read the story _____ the newspaper.
9. The cat is sitting _____ the chair.
10. Lucy was standing _____ the bus stop.
11. I'll meet you _____ the cinema.
12. She hung a picture _____ the wall.
13. John is _____ the garden.
14. There's nothing _____ TV tonight.
15. I stayed _____ home all weekend.
16. When I called Lucy, she was _____ the bus.
17. There was a spider _____ the ceiling.
18. Unfortunately, Mrs Brown is _____ hospital.
19. Don't sit _____ the table, sit _____ a chair.
20. There are four cushions _____ the sofa.

## 2.9 English – 6th class (Estonia)

**School:** Orava School, Orava (Estonia)

**Subject:** English

**Class:** sixth

**Topic:** We care

**Aims of the lesson:**

1. Introducing and practising new vocabulary.
2. Developing reading/listening/speaking skills.
3. Learning more about country clean-up days.
4. Thinking about our contribution to keep our planet clean.

**Materials and preparation:** Poems, texts, computers/tablets/phones

**Lesson plan:**

**1.Read the poem.**

Chocolate wrappers,

Plastic bottles,

Ice-cream sticks,

And cola cans.

Pizza boxes,

Biscuit packets,

Yogurt pots,

And chewing gum.

There you are

Why did you drop it?

Pick it up and

Put it in a bin.

Why don´t you care?

Don´t you really care?

What do you think about this poem? Do you care or not? Why? How? Etc.

**2.Read and translate the text.**

***A country clean-up day***

In the science class yesterday Miss Clark called us over to the huge map of the world which is on the classroom wall. „Who can show me where Estonia is?“ she asked. Olivia put up her hand. She´s always been a top student. „It´s up there, in northern Europe. It´s a small Baltic state.“ She pointed to a tiny dot on the map. „I know Estonia too,“ Robert said. „My dad works for Skype. He´s been on business trips to Tallinn. He says it´s the best city in Europe for free wi-fi.“

Miss Clark was quite impressed by our knowledge. „Very good,“ she said. „Estonians have started a project called *Let´s do it!* Does anybody know what it is about?“ Nobody gave the right answer.Oscar thought it was an activity holiday. His mum used to work for a travel agency.

„It´s a country clean-up day,“ Miss Clark said at last. „The first one took place in Estonia a couple of years ago, on the 3rd of May, 2008. More than fifty thousand volunteers picked up thousands of tons rubbish from the woods and the countryside. It happene just on one day.“

We went back to our seats. Miss Clark played a video about the first clean-up day. Children as well as grown-ups were carrying all sorts of rubbish dumped in the forests, on the riverbanks, and by the lakes. There were old tyres, broken furnituure, fridges, washbasins, and even toilets.

We were watching with our eyes wide open. „I don´t quite understand why there was household waste in the woods,“ Olivia said, looking really confused. „When our old fridge broke down in inter, dad put it in a special recycling bin.“

Miss Clark stopped the video and went on talking. „The Estonian clean-up project has spread to lots of other countries around the world, from Europe to Africa. In our next science class we`re going to find out what we can do to keep our country clean.“

- Answer the questions:

1) What did Olivia and Robert know about Estonia?
2) Did the students know what *Let´s do it!* is about?
3) Why did Oscar think it´s an activity holiday?
4) When did the first country clean-up day in Estonia take place?
5) How many people cleaned up the countryside on that day?
6) What sort of rubbish did they pick up from the countryside?
7) What did Olivia´s dad do with their old fridge when it broke down?
8) What are the students going to learn in their next science class?

- Retell the story!

The map of the world.

Knowledge of Estonia.

A country clean-up day.

The next science class.

- Find out more about *Let`s do it!* Go to the web page www.letsdoitworld.org
    1) How many countries have joined it?
    2) How many volunteers have there been?
        a) Visit the Mediterranean.
        b) When did it take place?
        c) How many countries joined in?
        d) Read the 10 steps for a clean world. http://test.letsdoitworld.org/10-steps-to-clean-world *

Which of the steps do you follow?

What about your family members?

- What do you think about our topic now? Is it important for you? For people all around the world? Why? What can we do ouselves to keep our planet clean?

# World Cleanup 2013

## 10 steps
how everybody can contribute to a Clean World

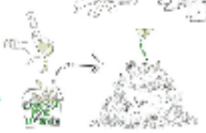
### 1. Don't throw trash!
Don't throw it into the street, into the woods, into the rivers, into the seas!
If you throw trash away, it doesn't go away, ever.
Trash comes back, in so many ways, and none of them good.

### 2. Sort your trash!
In the Clean World everything used is sorted and that's how we reduce trash. It is one of the best ways to re-use resources. In the Clean World we hope to eliminate landfills and view trash as a valuable source of new resources.

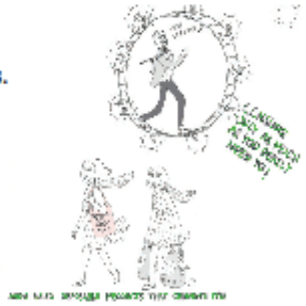
### 3. Don't throw anything away. Anything!
When something is broken, try to fix it! If you can't, then recycle it!
If you don't need something, think of a new use for it or give it to somebody who might need it. Everything that you may no longer require could be valuable elsewhere. Think, before you dispose.

### 4. Don't burn trash!
Burning trash seems an easy option. However, when you burn trash, it returns many toxins to the environment. Look to re-cycle your trash...
Don't burn it!

### 5. Compost food leftovers!
Food leftovers should not be thrown away, but composted.
In the Clean World there is a compost next to every house for every community.



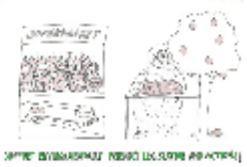
### 6. Consume only as much as you really need to!
In the Clean World people regard consumption as the last resort.
Repair as much as possible. Don't let fashion or technology affect your opinions.



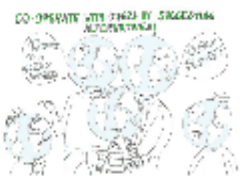
### 7. Avoid using disposable products that generate trash!
Glass bottles filled with drinks really are environmentally 'better'.
Instead of plastic bags, use bags made of fabric.
Products are consumed more reasonably in the Clean World.

### 8. Buy trash free products!
Avoid products that are excessively packaged.
Choose to buy durable products that will last.
In the Clean World there are totally recyclable products.


### 9. Support environmentally friendly legislation and actions!
Vote for laws that support environmentally friendly produced goods, from farmers' markets or directly from the producer.
Cut out the marketing and packaging. In the Clean World we buy responsibly.



### 10. Co-operate with others by suggesting alternatives!
Be yourself but make sure your friends can see your example.
In the Clean World everybody is responsible.
Be different by making your friends enjoy the Clean World.



## 2.10 Science – 9th class / 1st class secondary school (Italy)

**School:** Istituto Comprensivo, Ortona (Italy)

**Subject**: Technics / Art

**Class**: ninth primary school / first secondary school

**Thematic Unit:** Paper Recycling

**Topic:** Realize creative objects

**Language aims**: students learn new words such as: recycle, leaflet, tub,

frame, pulp, to shred…

**Cognitive aims**: know how to recycle paper; know how importanti it is to recycle materials; make hands-on experiences and use recycled paper to create new objects.

**Effective aims**: Take responsibility for keeping the earth cleaner.

Learn to help the environment for a better future.

Don't waste and recycle.

**Utilties**: old newsapers, leaflets, frames, tubs, blender, flowers, seeds, leaves, ribbons, glitter, strings, glue

**Structure of the lesson**

**Introductory part of the lesson**: the teacher shows a video on the internet about waste of papers, cut of the trees and recycling.

**Motivation**: learning by doing.

**Main part of the lesson**

Students take old newspapers and leaflets to school. They cut them in small pieces, put it in a tub and add some water. The teacher will use a blender to get a finely shredded paper.

The water helps the paper fibres to separate and they become suspended in the liquid.

Students take some pulp and put it on the wire of the frame. Each student add something: seeds, flowers, leaves, glitter,..  They shook it slightly and close the frame tightly to disperse the excess water.

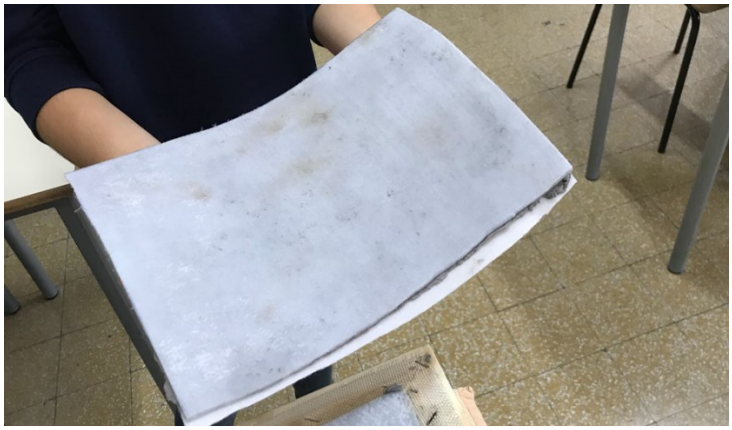
After much of the water has drained off, students open the frame and let the paper dry on a towel or on an old newspaper.

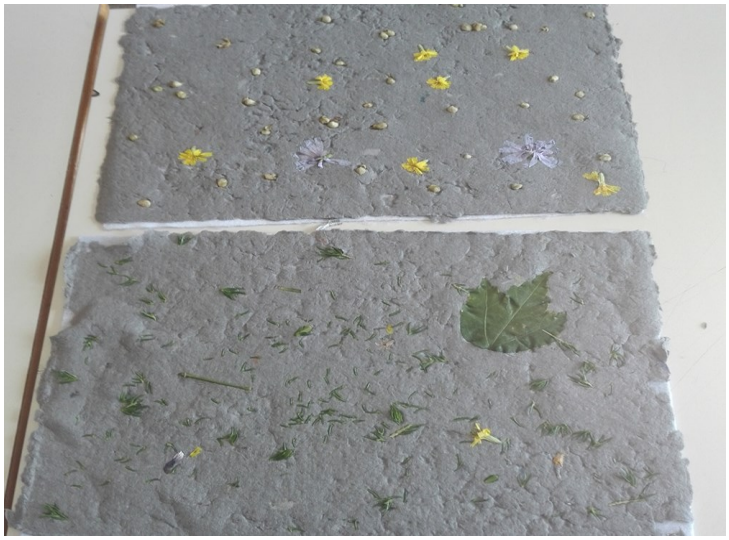
**Fixing part of the lesson**:

Once the paper has dried, students in groups realize new objects: bookmarks, photo frames, greeting cards, covers of books for recipes, diaries, …

Students can give the objects as a gift to their parents, relatives or to school guests on special occasions.

**Picture attachment to the creative process:**

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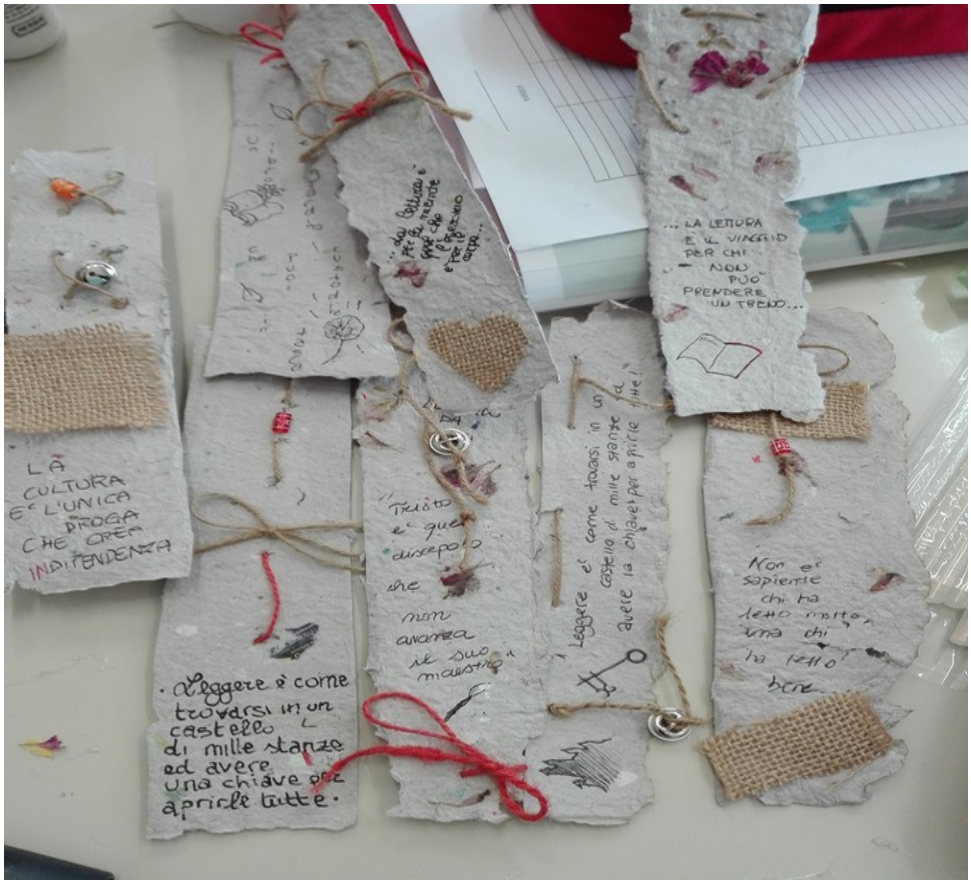

LA CULTURA E' L'UNICA PROGA CHE CREA INDIPENDENZA
... LA LETTURA E' IL VIAGGIO PER CHI NON PUO' PRENDERE UN TRENO...
Leggere è come trovarsi in un castello di mille stanze ed avere la chiave per aprirle tutte!
Non è sapiente chi ha letto molto, ma chi ha letto bene
Leggere è come trovarsi in un castello di mille stanze ed avere una chiave per aprirle tutte.


Ist. Comp. n°2 Ortona ITALY

## 2.11 Technics – primary education (Italy)

**School:** Istituto Comprensivo, Ortona (Italy)

**Subject:** Science

**Class:** primary education (1st – 4 th class)

**Thematic unit:** Materials *(reduce, reuse, recycle)*

**Topic**: Recycling

**Language aims:** Students learn and repeat concepts related to different types of food to various materials used in the food industry such as fruits, vegetables, bread, desserts, and things like glasses, glass containers, bottles, cans, etc.

**Language skills:** speaking, vocabulary, and writing words

**Linguistic learning objective:** At the end of the class, pupils will be able to: - use lexical concepts related to recycling in simple structures, such as: *we can recycle / we can´t recycle*, and use an imperative form to specify ways how to stop waste disposal such as: *do not throw paper / recycle paper*

**Non-Linguistic Learning Objective:** At the end of the class, students will present their waste abilities by classifying the type of waste that can / can not be recycled. Students will be able to offer different solutions to help reduce waste - eventually creating posters that promote environmental protection.

**Cognitive aims:** - Explore what constitutes waste

- to identify what kinds of waste we know

- Differentiate various types of waste and know how to classify it

**Psychomotor aims:**

physical exercise (using a game for waste sorting)

to demonstrate good sports performance when performing activities (during the game)

**Materials:** huge card game, pictures, cards, cubes, LCD and projector - photocopy of tasks - cardboard, markers, glue, scissors and markers

**Place:** gym / class

**Length:** 4 lessons

**Structure of the teaching block:**

Practice: Bring four plastic bags; each containing various items, such as aluminum foil pieces, papers, banana peels, plastic bottles, empty cans, glass bottles, sprays, paper boxes, newspapers and cups.

Divide the class into four small groups. Give each group the letter name: A, B, C, and D. Match each group to one container. Help groups with vocabulary and show which objects are suitable for recycling. Write the vocabulary on the board.

Ask each group to focus on the contents of the container and decide whether any item can go to the recycling center.

Before starting the game: Pupils will be divided into 4 groups. Each group will have the following role:

**1st lesson**

1st group - cuts 30 large (70x30cm) cartons of different colors. Write numbers sequentially on each tab

2nd group - prepares 10 small cards (size A4 paper) and writes PLASTICS, color yellow and type the name of each item

3rd group - prepares 10 small cards (size A4 paper) and writes PAPER on each card, color blue and write the name of each item

4th group - prepares 10 small cards (A4 paper size) and writes GLASS, color green and type the name of each item.

**2nd lesson**

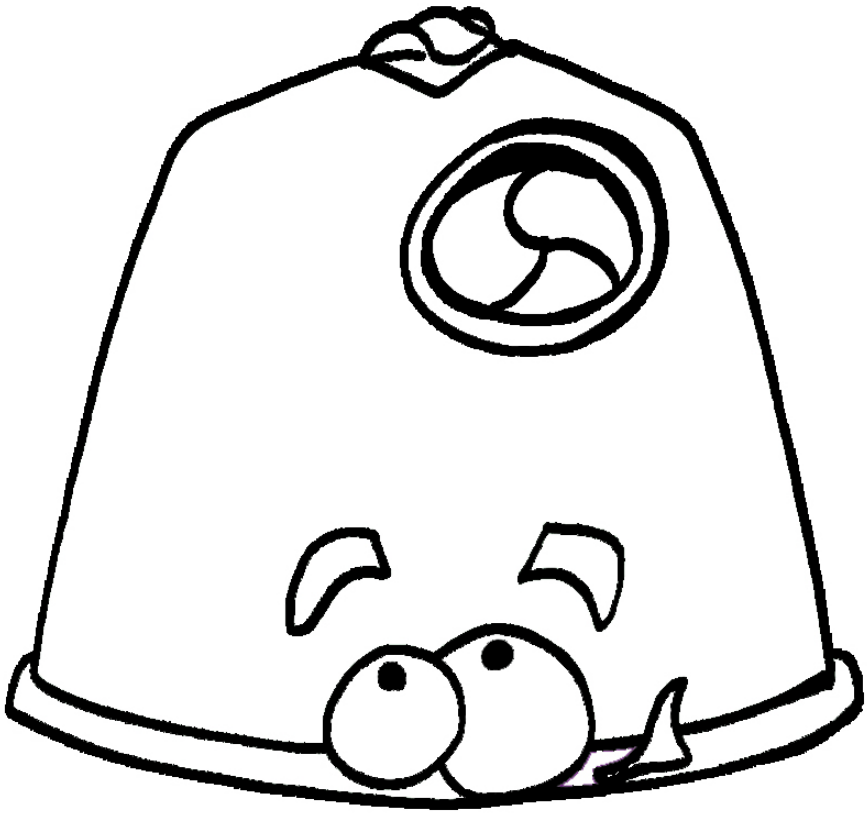
1st group - color and decorate the carton box, which will become a garbage can

2nd - draws and cuts 4 baskets, coloring them according to waste, which is recyclable - eg yellow - plastics, blue - paper, green - glass, and brown - organic waste

3rd group - prepares 10 cards (A4 size) and writes ORGANIC articles on each one, stains them

4th group - prepares 10 cards (A4 size) and writes MIXED WASTE, coloring them and writing objects for each one. Pupils also draw WASTE MONSTER on 4 small cards

**Waste monster:**



Make a hole and insert the lace so it can be attached to the neck.

Note: If you are working with small classes and can not divide pupils into so many groups, you can organize this activity for less lessons with smaller groups or work with multiple classes (even with different classes)

**Game progress:**

• The playing area (big cards) is placed in the center of the class with a container on one side. Each player selects a recycling bin and attaches it to his / her neck.

• Small cards are shuffled and 24 cards are face down at any point on the floor on the floor (see pictures). The remaining cards are dealt face down on the floor.

• The youngest player starts by throwing dice. The player moves to the card boxes, he does as many steps as he throws the number of the dice.

• If a player has come to the card box, look at it without showing it to other players. If it's an item that can be recycled in its trash, put it in a trash bin that pulls another card out of the floor and puts that card down anywhere on the board.

• If a player turns a Waste Monster card, it will show it to all players. Then he picks one of his cards out of his basket and returns it down to the floor.

• If a player picks up a card that is not a recyclable item, shows it to classmates and places it in the waste container.

• Another player continues in the game.

• The game continues until one player has collected at least 3 cards belonging to his recycling bins.

The winner is the first player who completely fill his or her basket (minimum 3 cards) with the correct items, or succeeds at the end of the spiral playing area.

For older children: Older children can play as well, it is possible to make the game more difficult in the way that they have to collect at least 5 cards, or if they are mistaken when deciding where the object in which the basket is, the player returns to

the beginning of the playing area, respectively his choice is time-bound.

**Vocabulary**

**Non-recyclable items:**

Fish bones, broken alarm clock, broken TV, spray, teddy bear, broken lamp, broken cup, old sofa, broken teapot

paper:

cardboard, paper, newspapers, magazines, old books, and so on.

plastic:

cups, caps, plastic bottles, containers, foils and the like.

glass:

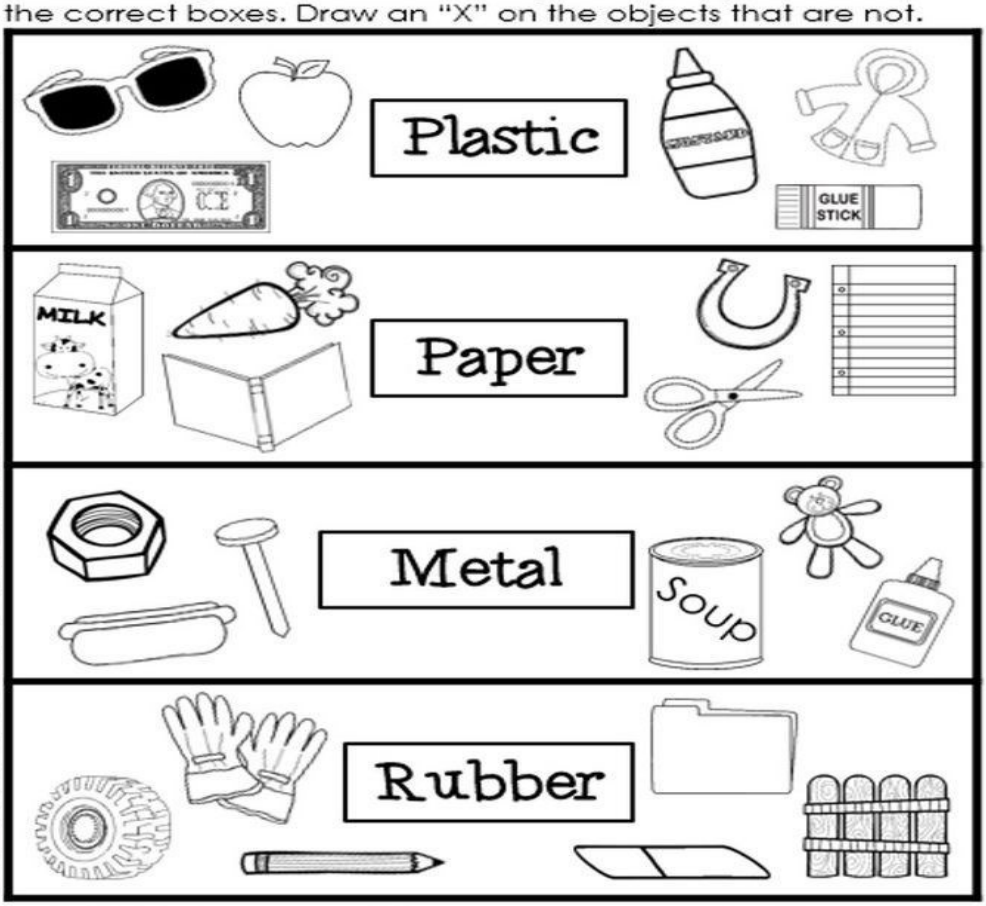
bottles, glasses, and the like.

organic waste: food residues, garden waste, eggs, banana peel, tomatoes, leaves, and the like.

**Picture attechments:**

Name: _____ Reduse, Reuse, Recycle

Color the objects that are made up of the recycled materials in the correct boxes. Draw an "X" on the objects that are not.






Name_____ Recycling

## 2.12 Art – 7th class (Italy)

**School:** Istituto Comprensivo, Ortona, (Italy)

**Subject:** Art

**Class:** seventh

**Thematic unit:** From Rubbish to Art

**Topic:** Realize art works by using waste materials

**Language aims:** Students learn a specific language in relation to modern art and enrich the English vocabulary in this area

**Cognitive aims:** Cooperate with each other,

Make use of creativity

Create a final product (object) by using appropriate selecting materials that fulfill their functionality based on their original idea or idea

**Affective aims:** Recognizing the importance of respecting the environment, pupils will collect waste material that will convert to sculptures, works of art and various creations.

**Structure of the teaching block:**

**1st step: discussion and brainstorming:**

Technique of arrangement of materials and individual elements, creation of compositions, use of the Internet and textbooks for obtaining information on this issue Pupils work in small groups or individually

**Time and place:** Approximately 10 lessons - Classroom at Arts, Informatics, Home, outside school area - at the beach named "la Ritorna" at Ortone (Italy)

Expertise: Students cooperate with a local company called "Ecolan" responsible for garbage collection - provide special gloves and bags to help to collect materials

Step 2: Students are divided into groups and walk to the beach to gather all kinds of material and rubbish

Step 3: Selection and cleaning of materials - plastic and glass bottles and pieces, pieces of wood, tin closures and cans, polystyrene, etc.

Step 4: Photo Gallery of Activities

Step 5: class discussion and preliminary sketches; choosing the best sketches and realizing the design, defining material and usage techniques

Step 6: Assembling materials using appropriate tools

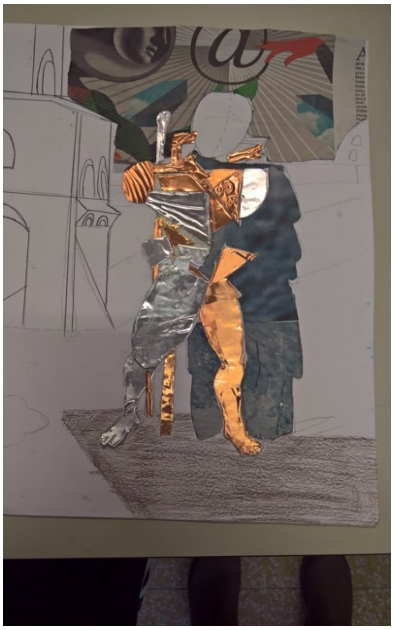
**Tools:** everything you need to draw; cardboard and various materials found on the beach; glue, scissors, nails, acrylic paints, spray paints, etc.

**Creative phase:** Students create artworks using waste materials during the lesson; work in a relaxed atmosphere while trying to understand the importance of respecting the environment and transforming waste into something else that is really beautiful.

**Final Phase:** The teacher, through a controlled interview, explains the negative impact of the use of plastics and other inappropriate ianappopriate materials at sea. He leads an interview with students about how to prevent this and how to prevent environmental pollution. They point out that they reduce the usage of inappropriate plastic materials and draw their attention to natural materials that are recyclable or unharmless to the environment.

**Image photos documentation of the activity:**

**Pupil´s works**

## 2.13 Natural science – 3rd (Portugal)

**School:** Colégio Guadalupe, Lisboa (Portugal)
**Subject:** Natural science
**Class:** third
**Thematic unit**: Man and nature
**Topic:** Forest

**General Objectives:**
To raise the importance of nature protection for pupils and to point out the negative impacts of environmental pollution. (specifically forests)
Familiarize students with the characteristic features of nature.
Demonstrate to the pupil how to properly care for forests.

**Specific objectives:**
Know the names of the main forest species found in the region.
Identify products that come from the forest.
Explore forest as a source of raw materials.
Know the rules of forest fire prevention.

**Required materials:**
Textbooks on the topic.
Different papers.
Glue, scissors, pens, pencils, etc.
Magazines and leaflets.

**Organization:**
Teacher prepares a class for group work for pupils.

**Educational introductory phase**:
The teacher divides pupils into groups, ideally 4 pupils in one group.

The teacher teaches pupils about economic activities that affect the landscape with focus on forest industry.
The teacher answers all relevant questions about forest protection and the environment.
He leads a dialogue between groups of pupils, what knowledge and experiences they have in that field.

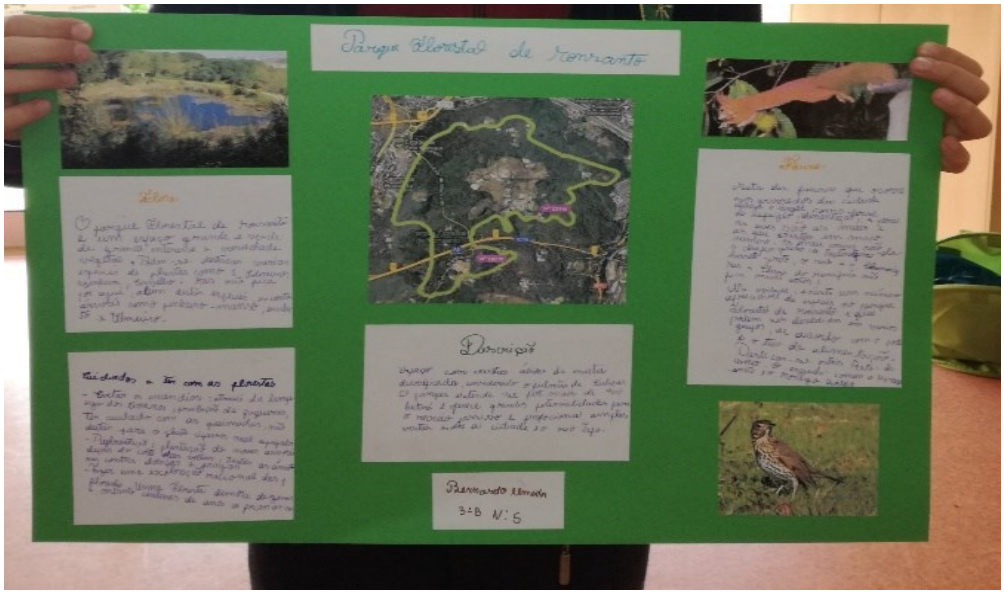
**Motivation**

The teacher can use educational videos or PowerPoint presentations that are related to the topic.

**The main phase**

Pupils are divided into working groups.
Each group searches for forest information (in Portugal) from a variety of research sources (magazines, internet, leaflets, etc.).
The pupils copy the information, cut out the pictures, and organize their creations on a poster, which they present to classmates in the classroom at the end of lesson.

**Final works:**




ERRA
A LOUSÃ
CARQUEJA
EUCALIPTO
PINHEIRO
MIMOSA
SOBREIRO
PLANTAS SILVESTRES
MUSGO


MATA DOS MEDOS

## 2.14 Maths – 4th class (Portugal)

**School:** Colégio Guadalupe, Lisboa (Portugal)
**Subject:** Maths
**Class:** fourth
**Thematic unit:** Units for measurement of weight
**Topic:** Weighing

**General Objectives:**
Familiarize pupils with the term "weight".
Learn to use weight and know how to weigh different subjects (different types of scales). Recognize the importance of recycling paper.

**Specific objectives:**
Weighing objects in a metric system.
Use kilogram weights in the weighing process.
Develop observation skills, raise awareness among pupils in the area
Develop teamwork.
Promote participation.

**Required materials:**
Textbooks on the topic.
Weight.
Magazines and brochures.

**Organizational phase of the lesson:**
Teacher asks students to collect papers and brochures and put the scales in class.
The teacher organizes the bench and divides the pupils into groups.

**Educational introductory phase**

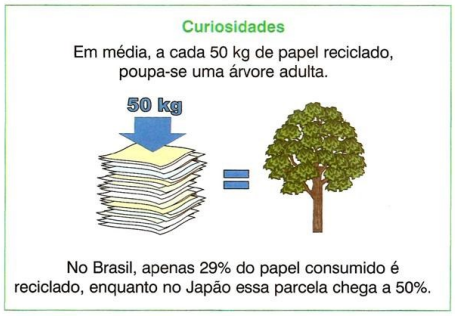
Teacherenters individual tasks in groups.

Pupils weigh papers and magazines in individual groups, they write their findings into

notes. Besides papers, they can also count on other things, write their findings in the charts, and then compare and confront these data with classmates from other groups.

**Motivation**

Pupils are familiar with the importance of paper recycling through videos and pictures. Students are participating in a solidarity campaign where the exchange of paper is exchanged for food that is donated to an institution that further distributes it to people in need.




Por que é importante reciclar papel?

Reciclando papel, pode-se diminuir a poluição causada pela indústria de papel, os custos com a manutenção de lixões e, além disso, poupar muitas árvores e energia.

**Chart, where pupils write their data:**

# REDUZINDO EM GRAMAS

✎ Reduza a gramas, usando a tabela:

A- 3 hg = _____ g

B- 7 kg = _____ g

C- 3 dag = _____ g

D- 11 hg = _____ g

E- 16 dag = _____ g

F- 23 kg = _____ g

G- 14 dag = _____ g

H- 5 hg = _____ g

I- 33 kg = _____ g

J- 1 dag = _____ g

K- 1 hg = _____ g

L- 1 kg = _____ g

| | kg | hg | dag | G | dg | cg | mg |
|---|---|---|---|---|---|---|---|
| A | | | | | | | |
| B | | | | | | | |
| C | | | | | | | |
| D | | | | | | | |
| E | | | | | | | |
| F | | | | | | | |
| G | | | | | | | |
| H | | | | | | | |
| I | | | | | | | |
| J | | | | | | | |
| K | | | | | | | |
| L | | | | | | | |

*Respostas: A- 300; B- 7 000; C- 30; D- 1 100; E- 160; F- 23 000; G- 140; H- 500 ; I- 33 000; J- 10; K- 100; L- 1 000.*

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## 2.15 Elementary class (Portugal)

**School:** Colégio Guadalupe, Lisboa (Portugal)
**Class:** Primary class
**Thematic unit:** Environment
**Topic:** Recycling

**General Objectives:**
Explain to children the importance of protecting the environment and show them how to prevent pollution of nature.
Create a pleasant environment for children with natural elements.
Understand nature and its characteristic features.
Describe the appropriate ways of environmental care.

**Specific objectives:**
Know the basic attributes of ecology, know the colors belonging to the waste separation. Know how to pronounce the basic words of the environment as well as words related to recycling (eg separate, recycling, reuse, air pollution, rubbish containers, etc.).
Promote new recycling habits.
Promote participation and involvement of the school community (parents of children).
Develop the ability to observe, desire to experience.
To show that recycling is a tool of extraordinary importance for the protection of the environment.

**Required materials:**
Books on this topic
pictures of nature
Glue, scissors, pens, pencils, colours, adhesive tapes, etc.
Magazines and brochures

**Structure of the lesson:**

The teacher prepares a class with the necessary materials to work, making sure that no material is missing. Prepare all support materials.
Introductory part of the lesson:
The teacher arranges pupils to a large circle, presenting themes to the group.
Supports dialogue with the group to find out what the child's knowledge already has on the subject. Provides information and clarifies the doubts.
Teacher reads a few short exctracts from books that deal with this issue and are intended for children in pre-school age.

Suitable books on the topic:




Then the teacher play a song for pupils and together they sing the song. The song is focused on the subject - environmental protection:

Song - **"Reciclar é preciso"**

Reciclar o lixo

é a solução

para acabar de vez

com a poluição.

O que é reciclado

logo se transforma

e a gente reutiliza

mas de outra forma.

Plástico vira bola

bola vira sacola

é só ter consciência

do que se deita fora

**Refrão – 2X**

E o lixo transformado

não será mais despejado

Nos campos, nos rios,

nas ruas e cidades

p`ra nossa felicidade.

**Refrão – 2X**

**Main part of the lesson:**

Students are divided into four working groups, each group being responsible for drawing one waste bin according to the colour.

Each group also has a role to look for in magazines for various items that they might throw into their respective bins. These pictures can then mix and play the game, who will then sort out the pictures. The game is very interesting for young children, it is activating and it also learns new things about separate collection (environmental protection).


BRIGADA VERDE

## 2.16 Pedagogical reflexion – summary

Each individual classes or lessons (blocks) which we presented were focused on environmental and nature protection issues. The structures have been developed by individual school coordinators in cooperation with relevant teachers of the subject. Despite the diversity of the structure of the individual lessons, we tried to combine the various approaches and stages of teaching. We have often documented through our illustrative examples or attachments, through the pictorial attachments or various worksheets, the creation of model or exemplary educational activities aimed at environmental education. It is obvious that this issue has a wide scope, it can not be included within one pedagogical document, our aim was to point out what possible ways are able to present during the lessons to implement environmental issues into the school curriculum. These lesson structures were also put into the practise and implemented into the teaching process of the schools that were part of the project. Participating schools, were the following countries - Slovakia, Spain, Estonia, Italy and Portugal. It has also been interesting to compare the different educational system in the countries concerned.

Through structures of the lessons, pupils have the opportunity to enrich their knowledge and information with the environmental topics. Many activities have an activating character that we value very positively. Teaching and educational process have been implemented in the school environment, so pupils should practice different approaches and methods that have an educational character in environmental education. If the structure of the lesson is inconsistent with the regional school curriculum or the methodological arrangement of the individual phases in the learning process, it is possible to modify and adapt them for own needs relevant with the rules which are valid, and in accordance, with the educational system of the given country. Often, the results of the lesson are increasing when a teacher is creative, and is able to use his / her own imagination and experiences to improve the learning and teaching processes.

# 3. PREPARATIONS OF THE SCHOOL EVENT

In the previous chapter, we have shown how we can enrich the teaching process through environmental education activities. The main method to achieve these goals was through the CLIL teaching method. In this chapter, we will show a way that would be suitable for preparing a school event that has an environmental focus and through which pupils have the opportunity to present their own skills. The main principle for achieving these goals will be non-formal education. A characteristic feature of non-formal education is the spontaneity of pupils to learn new things, does not have a firm structure or does not rely on formalistic structures. To give pupils a positive attitude to nature, to respect their environment more and to be prepared to protect it by appropriate means, it is advisable to directly confront pupils with the given issue.

An appropriate form of linking non-formal education with the school environment is to organize a *school event* - event, through which environmental ideas are spread and many activities have an environmental focus. In the next part we will get closer to the principles of methodology and the actual approaches of this educational activity. In the end, we will offer a photographic section of the event, which took place at the school garden in Družstevná Pri Hornáde Primary School, Slovakia.

## 3.1 Characteristics of the event and its determination

Characteristic feature of such an event is its focus, in our case, it is on environmental issues. Since it has a natural character and it is close to nature, the most appropriate way is to arrange such an event outside the interior of the school building, for example in the school yard or in the school garden. The most appropriate date for organizing this event is during the spring months. The main feature of spring is the rebirth and celebration of the new life, so this event also can have a specific name, "Spring Celebration" (in our case). It is intended not only for school and its pupils but also for the wider public, that is, it should be freely accessible to parents of pupils, other family members, local citizens, basically for everyone who has a positive attitude to nature and is interested in environmental issues. The main organizers of this event are

educators together with their students. Throughout this event, many environmental activities and other activities related to ecology and environmental protection are presented. In addition to these attributes, the whole event has a nice, friendly atmosphere that complements other activities that are sporting or artistic. The main purpose of this activity is that pupils present their skills acquired during the teaching process and can directly present them directly to their classmates, educators, parents or other persons in direct confrontation. Many pupils are engaged by various activities and they observe and discover new things by non-formal learning principles and principles which have environmental character. The structure of the preparation of the Spring Celebration can be divided into two main phases. The first phase is the preparatory phase, which requires efforts, in particular, with the help of the tutors. In the second phase, pupils are more active, they present their skills directly. Both phases are described in more details in the following part of this work.

### 3.2 First phase – preparatory

At this stage, teachers focus on the different issues of environmental education, which they discuss in detail with their students. They teach them during formal lessons at classes. This phase takes a long time, sometimes it can be several weeks. As part of this phase, teachers prepare different posters, worksheets, instructions, support materials relevant to the subject, in cooperation with pupils. It is good if at this stage the teachers share topics among themselves, and present chosen topic to the pupils, they prepare presentations and inform the pupils. They divide the different themes, it is important that at least 7-12 teachers take part in the preparatory phase. The more teachers, the more interesting and varied the event will be. The methodology used by the teachers may be varied but should be in line with the school curriculum and should take into account the principles of environmental education. Here are some examples that can be implemented in the preparatory phase (one teacher is responsible for one task):

a) Teacher prepares a presentation for pupils about the plants that grow in the region, explains their meaning (beneficial effects on the human organism), the encyclopedia will enroll students in details and information from this area. An

appropriate subject for this activity is Biology and the number of pupils in Group 4 - 5. During the preparatory phase, the pupils will be sufficiently familiar with the topic.

b) Teacher in the subject of physics explains to the pupils how important drinking water is, presents water information and explains how it is possible is to measure its quality (the school can buy a simple suitcase to identify water quality). During the lesson, students learn about the issue and are able to measure water quality. They observe their findings and write them into the notebook.

c) In art education, pupils create works that are related to environmental issues. They can use different art techniques, it is appropriate to use the artistic style - *Land art*. The teacher can also propose a topic such as *Forest, Earth, Protect the Planet, Landscape*, and so on.

d) Within the framework of environmental education, teachers will create working groups with 4 to 5 pupils. They will divide themes such as nature protection, negative environmental impacts, water pollution, deforestation, greenhouse gases, and so on. These themes are processed by students in presentations (powerpoint) or in posters. Each working group will thus become "experts" of the given environmental issue.

e) In the framework of healthy nutrition the teacher will prepare a group of pupils who will know and gain experience in the preparation of herbal teas. Pupils will know about the positive effects of these drinks. Another teacher prepares students who will prepare light meals, which are mainly from vegetables - different spreads in addition with healthy nutrition. These groups of pupils not only learn to prepare teas and spreads, but they also learn how to serve their customers (guests) by practising during the event.

f) Teachers of English will prepare the vocabulary from the thematic unit Man and Nature. The vocabulary relates to environmental issues. Pupils acquire the vocabulary. They prepare different language assignments and worksheets together with the teacher, they will present them during the event.

g) In the context of artistic subjects, the teacher can with the cooperation with pupils create nice pictures and works of art by usage of natural materials (leaves, stones, cones, branches and other natural objects). The main idea is to connect nature

with art. In this way, pupils who have artistic tendencies and feelings can be active in this process of realization.

h) Younger pupils can easily get familiar with separation of waste, the teacher explains them the colours that belong to different rubbish. Such a working group of pupils can create their own buckets and paint them. Pupils learn to distinguish and sort out the waste in an appropriate way.

i) In addition to the above-mentioned environmental activities, teachers can also prepare at this stage sporting activities such as various sports competitions, activity games, ball games. In addition, a group of pupils led by music education teachers can prepare a dance performance or prepare a song.

All these activities can be enriched by other activities that are typical for a school, or it is up to the imagination of teachers and their experience and skills. At this stage, pupils work in groups during different lessons, and during the extra school activities, the teacher is their coordinator and educator.

### 3.3 Second phase – presentation

After preparatory phase, follows the presentation phase, in which pupils present their knowledge and skills. The school event, in our case the "Spring Celebration", which can last all day or begin immediately after the end of the lesson, lasts few hours, according the terms of the school and the agreement of the teachers with the school headmaster. Each teacher who has prepared his/her students install boards, flip charts, school desks, chairs, and so on in the exterior of the school (around the building or in the school garden) where students will present their skills to their classmates as well as other visitors and guests at this event. Entrance is free, such an event should be prepared as an *open day* where parents and the general public have the opportunity to see the pupils directly at work and confront them directly in the school space. Usually, there is a relaxed, friendly atmosphere involved in relationships between the teacher - parent, pupil - parent, as well as local people - pupil. During this confrontation there is an exchange of knowledge, information on environmental level. Progress of such event is about as following: pupils present their knowledge, for example informing guests (other pupils, parents and teachers of other subjects) about the beneficial effects of plants, other groups of pupils serving guests with herbal teas and light meals with healthy

spreads. Some people can bring water from their homes, wells, drinking water in bottles, a professional group of students analyse this water and inform guests of the quality and status of water, other pupils can also try to do such an analysis, so they indirectly learn and informally gain knowledge from the given subject as well as their classmates. Guests of this environmental event receive valuable information, and at the same time, pupils have the opportunity to present their knowledge in areas where they have been thoroughly prepared in the preparatory phase. The organization of this event is an appropriate way also for schools when there is occurring a negative barrier between a teacher and a parent, it is very good mean how to eliminate and overcome such a relationship and at the same time to avoid some prejudices in the future.

Through this event (activity), we wanted to demonstrate how environmental issues can be addressed in the school environment despite the fact that environmental education is absent as a compulsory or optional subject at that school. Nature and environmental concepts can be successfully implemented in the teaching process in this way, moreover, through this activity, teacher-parent relationships are also strengthened, which are also important for creating a good climate in the school environment.

### 3.4 Photogalery from the event „Spring Celebration“


Natura è ...
BIOPREDAJŇA


Zelenej školy
Chceme byť pre druhých príkladom!


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## 4. CONCLUSION

In this work, we have shown possible ways to promote environmental issues in the school environment, both with the use of CLIL teaching methods and later with the help of non-formal education, through which we organized a school event in which pupils presented their skills. We recognize the importance of protecting the environment and nature in today's world as one of the main priorities, so we consider these environmental themes to be very beneficial for today's youth. We wanted to point out the different forms and methods of working with pupils in order to raise their awareness of these important topics. Many activities have an activating character through which learners are more motivated and more accessible to the given tasks and issues. An inherent part of this learning process are teachers themselves who contribute to improving the learning process not only with their knowledge and skills, but also with their creativity and experiences. The structures of the lessons we have offered in this work are demonstrative, and we will be happy if other teachers will modify and adapt them to their own learning experiences and needs following their own school curriculum. We hope that by common forces we will be able to create a better, greener, world for the next generation.