

# Loodusharidus läbi erinevate tegevuste

(Intellektuaalne väljund)



Pedagoogiline dokument koostati projekti "Spring Celebration" raames osalevate koolide rahvusvahelise koostöö raames. Projekt keskendub keskkonnaküsimustele ja keskkonnakaitsele.



Seda projekti on rahastatud Euroopa Komisjoni toetusel. Käesolev väljaanne kajastab ainult autorite seisukohti ja komisjoni ei saa pidada vastutavaks selles sisalduva teabe võimaliku kasutamise eest.

Autorid:

Koordineeriv kool:	ZŠ, Hlavná 5, Družstevná pri Hornáde	(Slovakkia)
Partnerkoolid:	Orava Kool, Louna-Eesti, 64101, Orava	(Eesti)
	ISTITUTO COMPRENSIVO N. 2, ORTONA	(Itaalia)
	CELFF-Colégio Guadalupe	(Portugal)
	Escola Salvador Espriu, Montgat, Barcelona	(Hispaania)

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Erasmus plus projekt

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## SISSEJUHATUS

Tänapäeva maailmas on positiivne suhe keskkonda väga tähtis, sest sageli seisame silmitsi üksikisikute sobimatute käitumistega ning ebakohase inimtegevusega loodusele ja meie enda ruumile, milles me elame.

See sotsiaalkultuuriline probleem ületab riikliku või piirkondliku piiri - sisuliselt on see mitmekesine ja eripärane, selle mõju aga on suurem kui vaid Euroopa mõõde. Üks võimalus kõrvaldada ja vabaneda negatiivsetest suhtumistest keskkonnale on õpilaste harimine koolides.

Praeguseks probleemiks on ka see, et haridussüsteemis puudub sageli haridus keskkonnasõbraliku hariduse valdkonnas. Seda teemat õpetatakse ainult vähesestes koolides ja see ei kuulu põhikooli õppeainete hulka. Selles töös keskendume seega erinevatele tegevustele ja töövormidele, millel on keskkondlik iseloom. Pakume võimalusi õppekavade rikastamiseks koolide õppekavadesse, kui koolidel puudub keskkonnahariduse teema. Näitame, kuidas suurendada õpilaste oskusi ja teadmisi ning aktiveerida neid õppetundide ajal aktiivsemalt tegutsema. Samuti, kuidas viia tunnid positiivsesse seosesse loodusega et kaitsta keskkonda.

Töö võiks jagada kahte ossa. Esimeses osas pakume keskkonnaharidusele keskendunud õppetundide struktuure. Me kasutame CLIL-i õpetamismeetodeid õppühikute kaupa. Õppeühikute kaudu me kasutame inglise keele õpetamise meetodeid keskkonnahariduse jaoks. Lisaks CLIL-ile pakume ka teisi võimalusi keskkonnahariduse rakendamiseks teiste ainete õpetamisprotsessis, et õpilased saaksid positiivse seose keskkonnakaitsega ja omandaksid suurema pädevuse ökoloogia ja keskkonnateemadel. Iga õppetunni struktuuri täiendavad mitmesugused tugimaterjalid ja töölehed.

Töö teises osas pakume võimalust korraldada ürituse - koolisündmuse, mis on keskkonnasõbralik ja mille kaudu õpilased esitavad oma võimeid ja oskusi selles valdkonnas. Paljudel sündmusega seotud tegevused on õpilasi aktiveerivad, mille juures kasutatakse tundides ja projekti käigus omandatud teadmisi. Need tegevused toetavad ka õpilaste loovust ja suurendavad teadlikkust keskkonna kaitsmise tähtsusest. Selliste sündmuste korraldamiseks sobilik õppemeetod on mitteformaalse õppimise

põhimõtted, mida on üksikasjalikumalt kirjeldatud käesolevas jaotises. See õpetusviis sobib igat tüüpi koolidele, isegi nendele, kus puudub keskkonnaharidus.

Lihtsate ülesannete täitmisel osalevad õpilased aktiivselt kõnealustes keskkonnaalastes tegevustes ja saavutavad seeläbi positiivse suhtumise keskkonda. Lõpetusesks esitame kokkuvõtte õpetamismeetodi CLIL pedagoogilisest käsitlusest õppetöös, samuti mitteformaalse hariduse eelistest ja eelkõige nende panusest, mis ei hõlma ainult keskkonnamõõdet, vaid suurendab õpilaste pädevusi ja toob peamiselt välja positiivne seose keskkonna ja looduskaitsega. Kõik tunnikavad on inglisekeelsed kuna on osa CLIL õppest ehk ainetevahelisest integratsioonist.

*"Kui viimane puu lõigatakse, viimane kala tapetakse ja viimane jõgi mürgitatakse, siis näete, et raha ei saa süüa."*

*John May*

## **1 KESKKONNATEEMALISTE ÕPPETUNDIDE TÖÖMEETODID**

Keskkonnakoolitus ei ole harilikult koolide haridusprogrammide lahutamatu osa, see on marginaalne haridusalane teema, kuigi üldiselt täna räägime selle olulisusest ja see on ka ühiskonna vältimatu osa ning samas on ka tungiv vajadus parandada meie igapäevaelu. Looduse ja keskkonna kaitse on täna populaarne teema, hoolimata asjaolust, et me ei pööra sellele koolides piisavalt palju tähelepanu. Selles töös tahame rõhutada, kuidas keskkonnaküsimusi on võimalik ainete õpetamiseks rakendada hoolimata asjaolust, et keskkonnaharidus ei kuulu paljude koolide kohustuslikesse või vabatahtlikesse õppeainetesse. Keskkonnaküsimuste edukas kasutuselevõtt õppeprotsessis on kasulik ka CLIL (sisu ja keele integreeritud õppimine) õppemeetodil, mille kaudu saame keskkonna teemasid teistele teemadele rakendada. Sellised teemad võivad hõlmata näiteks inglise keelt, matemaatikat, kunsti, loodusteadust, ajalugu, geograafiat, aga ka teisi teemasid, nagu kehaline kasvatus, tehnika või muusika jne.

Järgmises jaos tutvustame 15 projekti raames osalevate koolide ühiste jõupingutustega loodud õppetunni struktuure, millel on selgelt erinevad õppetundide planeerimisstruktuurid, erinevad meetodid ja õpetamisprotsessi olemus. Huvitav on näha, kuidas antud õppetundide struktuurid on välja töötatud vaatamata ilmsetele erinevustele riigi metoodikas. Iga riik on koostanud kolm õppetunni struktuuri. Nende struktuuride loomisel on osalenud järgmised riigid: Slovakkia, Hispaania, Eesti, Itaalia ja Portugal. Erinevate meetodite abil oleme välja töötanud individuaalseid õppetundide struktuure, mida saab rakendada meie enda koolikeskkondadesse või kohendada oma koolisüsteemi kõigi tundide tüüpiliste vormide ja iseloomulike tunnustega vastavalt riiklikule õppekavale.

Õppeprotsessi asjakohased meetodid ja vormid hõlmavad näiteks "suunatud intervjuud", mida õpetajad saavad kasutada keskkonnakaitse, looduskaitse, tervislike eluviiside jms rõhutamiseks. Neid meetodeid on näidatud näiteks Slovakkia ja Hispaania koolide poolt välja töötatud õpetamise õppekavas - (vt lk 20 ja 23). Õpetaja jaoks on oluline, et õpetaja juhiks õpilased keskkonnaküsimust juurde ja looks positiivse seose teemaga. Kui näiteks Geograafia õppetunni käigus selgitatakse veekogude ja vee voogude probleeme, on tähtis mainida ka keskkonnakaitse vajadust, ning viia õpilastega läbi suunatud vestlused jõgede, merede ja ookeanide teemal.

Teine sobiv meetod on töötada koos kirjalike tekstide koos niinimetatud lugemisest arusaamise ülesannetega. Õpilased töötavad keskkonnaküsimustega seotud tekstiga ning nad teevad antud tekstiga aktiivselt erinevaid ülesandeid ja tegevusi. Seda meetodit on mainitud mõnes tunnikavad, näiteks lk 9 (muinasjutt), lk 14 (lugu Slovakiast), ning Eesti kooli poolt keskkonnakaitset käsitlevate tekstide lk 46-47 ja leheküljel 53 on tekst maapiirkonna puhastamise kohta. Õpetajad valivad teadlikult võõrkeele õpetamiseks sobivad teemad ja asjakohase tekstiga keskkonnateema, milles õpilane ei puutu kokku ainult grammatiliste kategooriatega, vaid ka keskkonnaprobleeme lahendavate asjakohaste tekstidega. Meetod "Õppimine läbi tegevuse", mida võib selgitada ka sõnadega: jälgin, õpin ja teen seda enda kätega, kuna õpilased omandavad oma oskused otseselt praktiliste ülesannete täitmisel. Need meetodid on esitatud õpetamisstruktuurides leheküljel 56, kus selgitatakse üksikasjalikult Itaalia kooli enda paberi tegemise viise. Asjaomaste suhete hulgas on tähtis kaasata mitmesuguseid muid keskkonnamõõdetavaid tegevusi, mille sobivaks vormiks on võistlus või mäng, mille

Itaalia kool on üksikasjalikult välja töötanud (vt lk 56), mäng on prügi sorteerimisest. Füüsilise tegevusega võime näiteks kehalise kasvatuses tunnis motiveerida õpilasi teiste keskkonnaküsimustega seotud tegevuste jaoks. Õppeprotsessi mõnedel etappidel on asjakohane täita ruum lauluga (mille esitas Portugali kool), millel on ka keskkondlik iseloom, ning kus õppijad läbi pideva kuulamise loovad positiivse suhtumise loodusesse ja selle kaitsmisesse.

Kõiki neid töömeetodeid, samuti nende vorme või tavasid (suunatud intervjuud, õppimine läbi tegevuse, tööd tekstidega, lugemine, mängimine, võistlus, laulud jne) sobivad mõne õppetunni rakendamiseks ka mitte-keskkonnaküsimustega. Palju sõltub ka õpetaja kujutlusvõimest ja loovusest ning selle seosest õpitava teemaga. Paljudel neil meetoditel on aktiveeriv loomus ja nad juhivad õpilasi tublimale osalemisele õppetundides. Järgmises osas kirjeldame kõiki õppetundide struktuure.

## **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.....

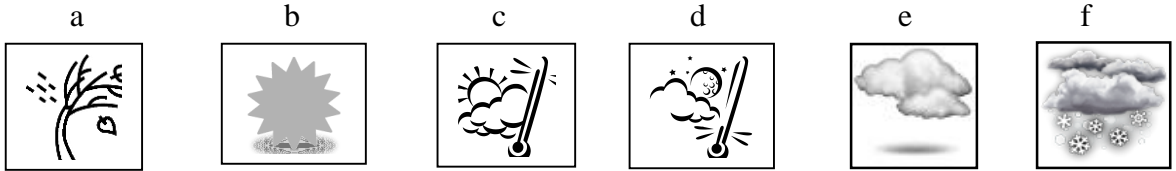
Teacher explains pupils the importance of environmental protection and its impact on weather changes. The pupils also expresses their views on the importance of water (rain) and the sun for life.

**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) .....

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**

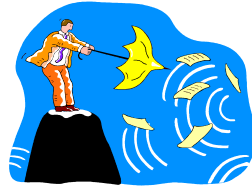
In Antarctica it's snowing  
and in Africa it's hot.

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?

---

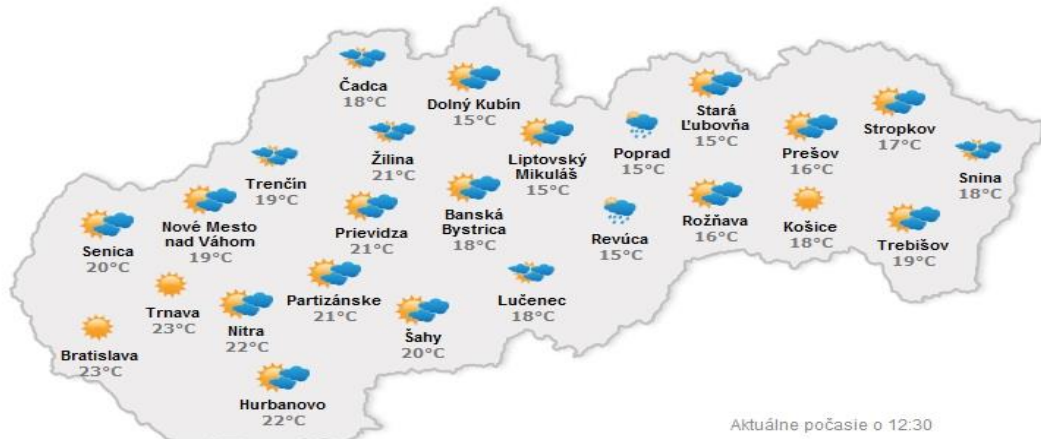
Is the wind blowing in Antarctica?

---

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

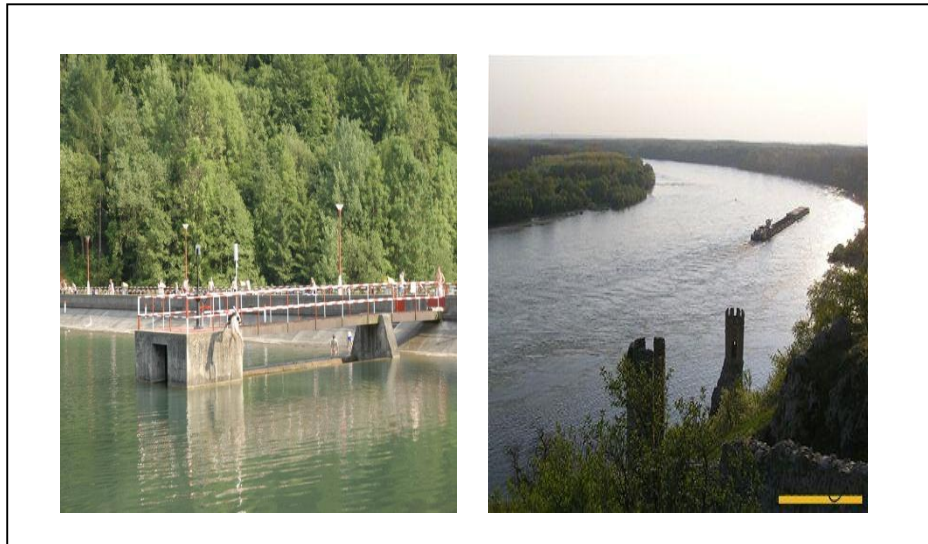
Once upon a time there was a beautiful country called Slovakia. The landscape was beautiful full of colors, there were many rivers, meadows but also hills. In that beautiful country, the river was the name of the Danube. At the bank of the river, Jane, a small jade, was just relaxing. She knew the whole 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*

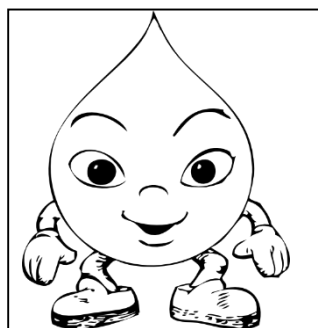


*Picture 3*

***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.



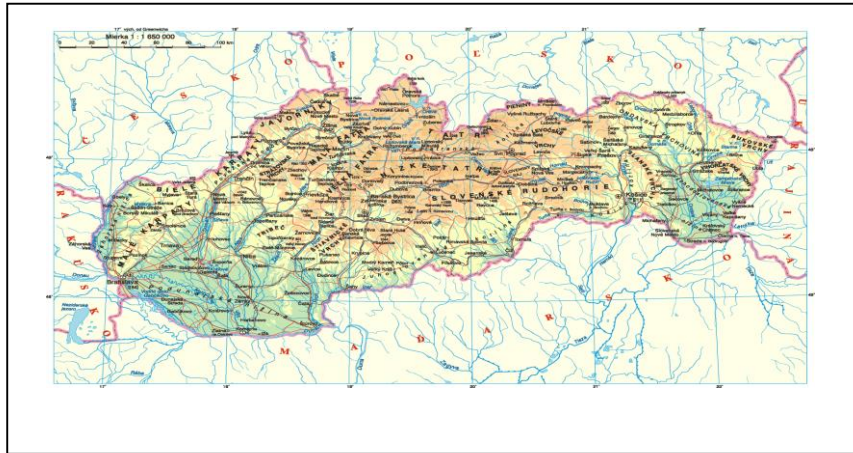
*Picture 4*

(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



## 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 writing 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**:

<b>Renewable energy source:</b>		
<b>Group members:</b>		
-	-	-
-	-	-
<b>Required materials + who does it bring?</b>		
<input type="checkbox"/> ..... <input type="checkbox"/> we have it at school <input type="checkbox"/> _____ (name of the member)	<input type="checkbox"/> ..... <input type="checkbox"/> we have it at school <input type="checkbox"/> _____ (name of the member)	<input type="checkbox"/> ..... <input type="checkbox"/> we have it at school <input type="checkbox"/> _____ (name of the member)
<input type="checkbox"/> ..... <input type="checkbox"/> we have it at school <input type="checkbox"/> _____ (name of the member)	<input type="checkbox"/> ..... <input type="checkbox"/> we have it at school <input type="checkbox"/> _____ (name of the member)	<input type="checkbox"/> ..... <input type="checkbox"/> we have it at school <input type="checkbox"/> _____ (name of the member)
<b>Organizing 3 sessions:</b>		
<b>SESSION 1 Date:</b> _____ <b>REMEMBER PAINT NEEDS TO DRY!!</b> - - -		
<b>SESSION 2 Date:</b> _____ <b>REMEMBER PAINT NEEDS TO DRY!!</b> - -		



-	
<p><b>SESSION 3 Date:</b> _____</p> <ul style="list-style-type: none"><li>- Make tags with the name of the parts of the model (vocabulary worked).</li><li>- Make a small poster with the name of the renewable source of energy and the list of the members of the group.</li></ul>	

## **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 ephemeral, 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**

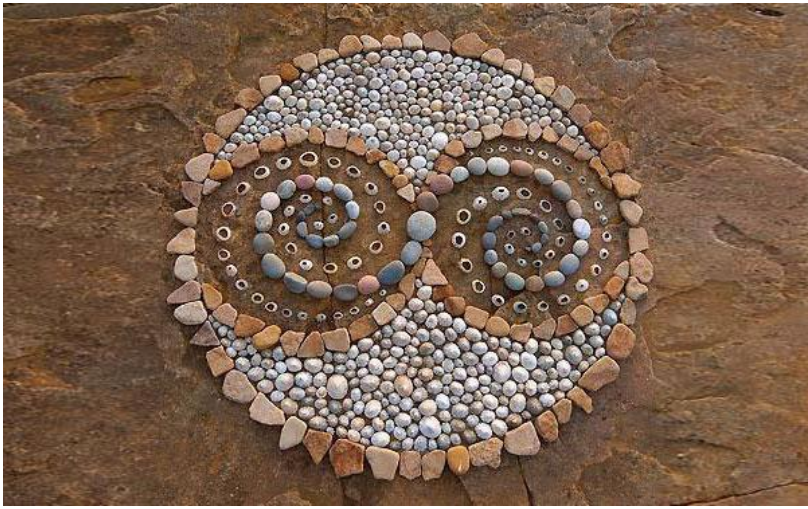
**Shells**

**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

- 1<sup>st</sup> 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?

- **2<sup>nd</sup> 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:



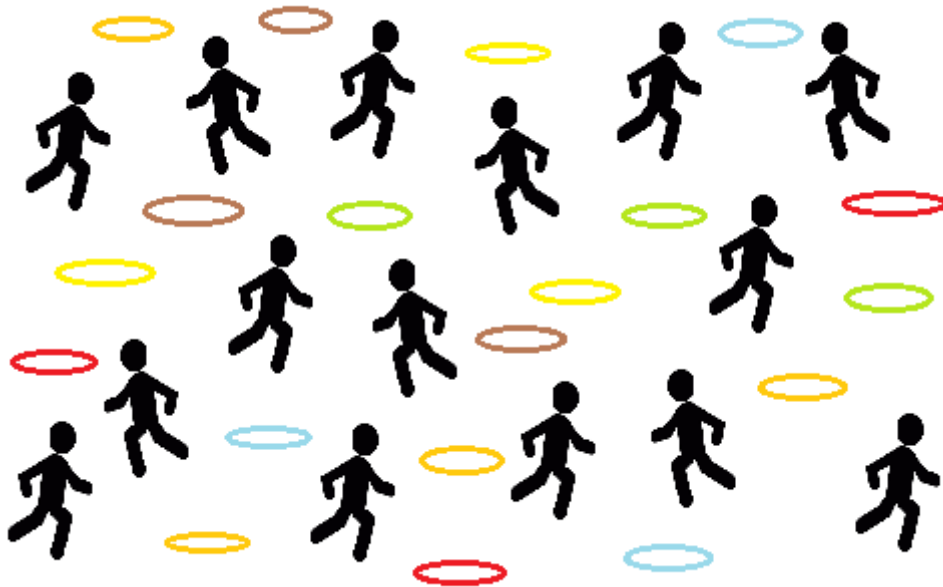
- **3<sup>rd</sup> activity**

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 from it. Students have to fill in the gaps without seeing the original 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 than 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 pieces and gives one set for each pair.

#### Task 4.

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

#### 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 species 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 other 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 than 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 (2008) by Airik E. et al

## **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

**Social 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 the 1st 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 happened 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 furniture, 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](http://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 ourselves 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.

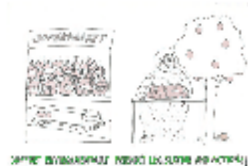
## 8. Buy trash free products!

Avoid products that are excessively packaged. Choose to buy durable products that will last. In the Clean World there are totally recyclable products.



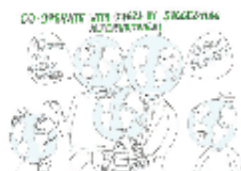
## 9. Support environmentally friendly legislation and actions!

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 – 9<sup>th</sup> class / 1<sup>st</sup> 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 important 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.

**Utilities:** old newspapers, 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.

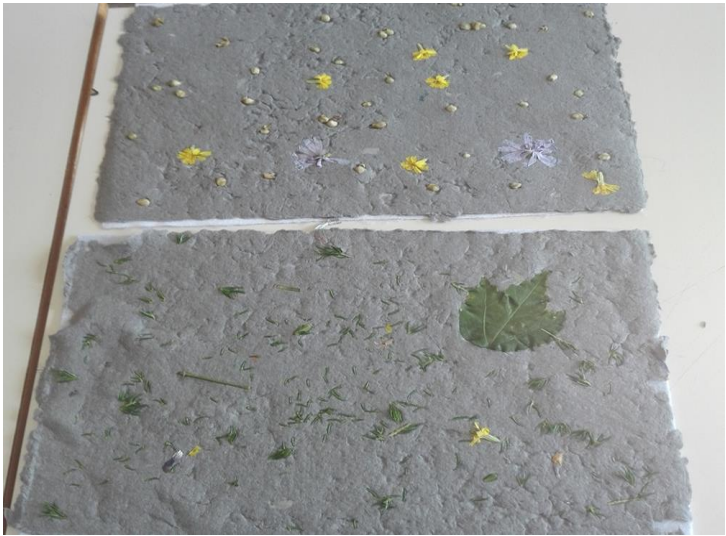
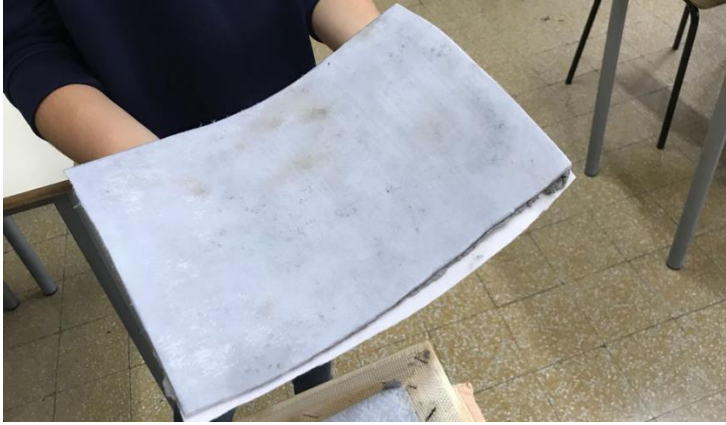
### **Fixing part of the lesson:**

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.

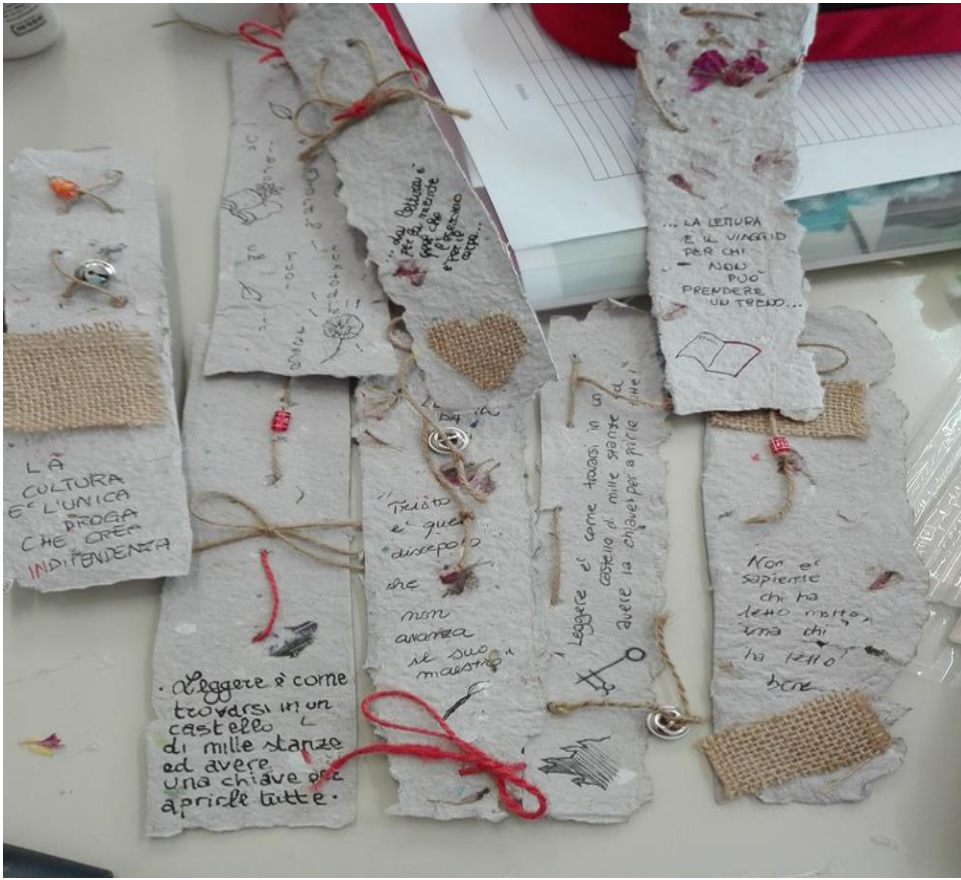
**Picture attachment to the creative process:**











## 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

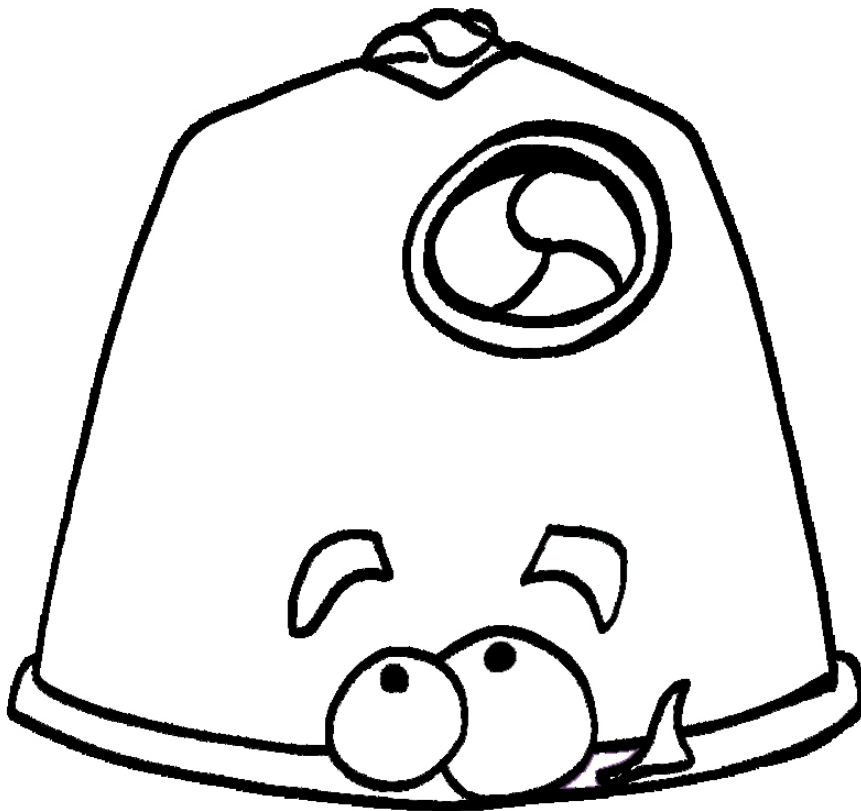
1st group - color and decorate the carton box, which will become a garbage can

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.


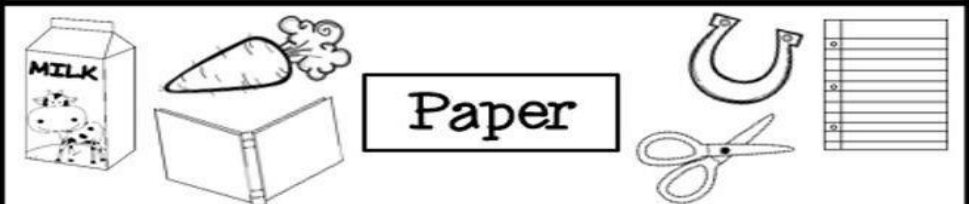


### **Picture attachments:**








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.

	<b>Plastic</b>
	<b>Paper</b>
	<b>Metal</b>
	<b>Rubber</b>

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Name \_\_\_\_\_ Recycling

<b>Paper and cardboard</b> 	<b>Glass</b> 	<b>Plastic</b> 

## **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 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 unharmed 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.

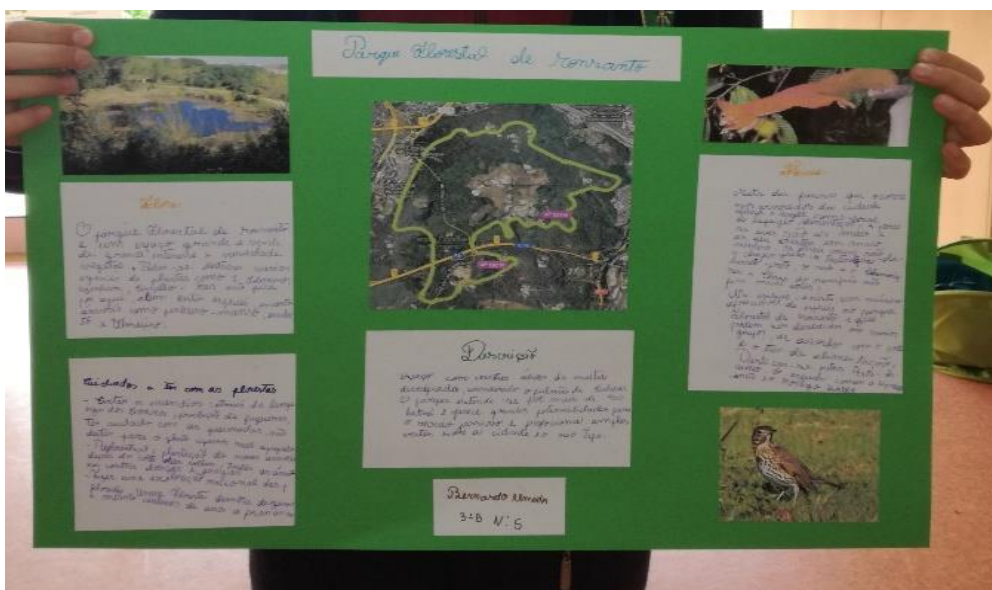
### The main phase

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:



# TERRA DA LOUSÃ



**Importância das Florestas:**  
 - São uma alternativa.  
 - São essenciais para a economia, estabilidade, saúde, sustentabilidade, etc.

**EUCALIPTO:** usado para a produção de celulose.  
**Pinheiro:** essencialmente para a produção de madeira e celulose.  
**PLANTAS SILVESTRES:** alimentação e medicina.

**LINDAÇOS A TER COM AS FLORESTAS:**  
 - Promover o Eucalipto, mediante a criação de zonas de produção e distribuição de sementes, no âmbito da rede nacional de produção.  
 - Criar zonas de produção de sementes de Pinheiro, através da criação de zonas de produção.  
 - Melhorar a qualidade da madeira.  
 - Criar zonas de produção de madeira de qualidade.

**MUSGO:**  
 - Vegetação muito comum.  
 - Cresce em locais húmidos e sombreados.  
 - É muito utilizado na medicina tradicional.  
 - Também é usado na produção de produtos naturais.  
 - É muito utilizado na produção de produtos naturais.  
 - É muito utilizado na produção de produtos naturais.





# MATA DAS MEDAS



**A Mata das Medas**  
 - Área de floresta de carvalhos e castanheiros, com uma grande diversidade de habitats.

**Características da Mata:**  
 - Há plantas endémicas e espécies raras.  
 - Tem um habitat muito rico em diversidade.  
 - Existem muitas espécies de animais.

**Características da Mata:**  
 - Há muito espaço.  
 - Há muita água.  
 - Há muita luz.  
 - Há muita sombra.

**Animais:**  
 - Castor  
 - Raposa  
 - Gato-branco  
 - Leão-marinho  
 - Foca  
 - Sapo  
 - Lagartixa  
 - Borboleta  
 - Aranha  
 - Besouro  
 - Formiga  
 - Minhoca  
 - Molusco  
 - Inseto  
 - Ave  
 - Mamífero  
 - Reptil  
 - Anfíbio



## **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**

Teacher enters 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.

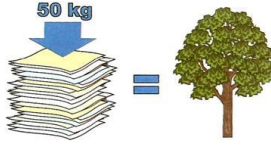
### Motivation

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.

**Curiosidades**

Em média, a cada 50 kg de papel reciclado, poupa-se uma árvore adulta.

50 kg



No Brasil, apenas 29% do papel consumido é reciclado, enquanto no Japão essa parcela chega a 50%.

### 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



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.

## **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.

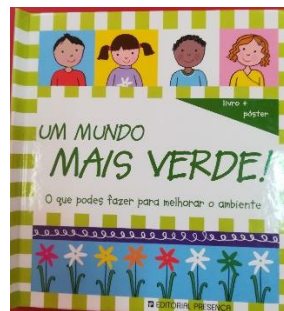
Introductory part of the lesson:

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 extracts 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).



## 2.16 Pedagoogiline refleksioon – kokkuvõte

Igas klassis või õppetunnis (plokkides), mille me esitlesime, keskenduti keskkonna- ja looduskaitseküsimustele. Tundide struktuurid on välja mõelnud üksikute koolide koordinaatorid koostöös vastavate aineõpetajatega. Hoolimata üksikute õppetundide struktuuri mitmekesisusest ja erinevusest, püüdsime ühendada õpetamise erinevad lähenemised ja etapid. Me oleme tihti tööd dokumenteerinud illustreerivate näidete või manuste kaudu, lisades pildi või erinevaid töölehti, mudeli loomist või näitlikke harivaid tegevusi, mis on suunatud keskkonnaharidusele. On selge, et see teema on laiaulatuslik ja seda ei saa ühe pedagoogilise dokumendiga hõlmata. Meie eesmärk oli juhtida tähelepanu võimalustele, kuidas keskkonnaküsimusi kooli õppekavas rakendada. Õppetundide struktuure viidi ellu ka praktikas ja rakendati projekti raames koolide õppeprotsessi. Osalevad koolid olid järgmistest riikidest - Slovakkia, Hispaania, Eesti, Itaalia ja Portugal. Samuti on olnud huvitav võrrelda asjaomaste riikide erinevaid haridussüsteeme.

Õppetundide ülesehituse kaudu on õpilastel võimalus oma teadmisi ja infot rikastada keskkonnateemadega. Paljud tegevusalad ja teemad on õpilasi aktiveerivad, mida me väga positiivselt hindame. Koolikeskkonnas on rakendatud õpetamis- ja haridusprotsessi nii, et õpilased harjutaksid erinevaid lähenemisviise ja meetodeid, mis keskenduksid keskkonnaharidusele. Kui õppetunni ülesehitus on vastuolus piirkondliku kooli õppekavaga või õppeprotsessi üksikute etappide meetodilise korraldusega, on neid võimalik kohandada oma vajadustega, mis on seotud kehtivate eeskirjadega ja kooskõlas antud riigi haridussüsteemiga. Sageli õpitulemused suurenevad, kui õpetaja on loominguline ja suudab oma õppetöö ja õpetamisprotsessi parandamiseks kasutada oma kujutlusvõimet ja kogemusi.

### **3. SÜNDMUSE “KEVADFESTIVAL” ETTEVALMISTAMINE**

Eelmises peatükis oleme näidanud, kuidas me saame õpetamise protsessi rikastada keskkonnahariduse kaudu. Nende eesmärkide saavutamise põhimeetod oli CLIL-i õpetamise meetod. Selles peatükis tutvustame võimalusi, mis sobiksid keskkonnasõbraliku koolisündmuse ettevalmistamiseks ja mille kaudu õpilastel oleks võimalus oma oskusi esitada. Nende eesmärkide saavutamise peamine põhimõte on mitteformaalne haridus. Mitteformaalse hariduse tunnusjoonis on õpilaste spontaansus uute asjade õppimisel, neil puudub tugev struktuur või ei tugine formaalsetele struktuuridele. Selleks, et anda õpilastele positiivne suhtumine loodusesse, austada oma keskkonda rohkem ja olla valmis seda asjakohasel viisil kaitsma, on soovitatav õpilased siduda vahetult antud temafala.

Sobiv vorm mitteformaalse hariduse sidumiseks koolikeskkonnaga on korraldada koolisündmus - sündmus, mille kaudu keskkonnaeesmärgid levivad ja paljud tegevused keskenduvad keskkonnale. Järgmises osas vaatleme metoodika põhimõtteid selles tegevuses. Lõpuks pakume fotograafilist osa sündmusest, mis toimus Slovakkia Družstevná Pri Hornáde algkooli aias.

#### **3.1 Sündmuse eripära ja selle tunnusjooned**

Sellise sündmuse iseloomulik tunnusjoon on selle fokuseerimine, mis meie puhul on keskkonnaküsimused. Kuna tegevus keskkonnakaitselise loomuga ja loodusega lähedalt seotud, on kõige sobivam viis korraldada selline üritus väljaspool koolihoonet, näiteks koolihoovis või kooliaias. Selle sündmuse korraldamise kõige sobivam päev on kevadel. Kevadise peamine omadus on uue elu taaselustumine ja selle tähistamine, seega võib sellel üritusel olla ka spetsiifiline nimi "Kevadefestival" (meie puhul). See on mõeldud mitte ainult koolile ja selle õpilastele, vaid ka laiemale üldsusele. See peaks olema õpilastele, teiste pereliikmetele ja kohalikele elanikele vabalt kättesaadav. Sündmus peaks olema avatud kõigile, kes on looduse suhtes positiivsed ja huvitatud keskkonnaküsimustest. Selle ürituse peamised korraldajad on õpetajad koos oma õpilastega. Kogu selle sündmuse jooksul esitatakse paljusid keskkonnategevusi ja muid

ökoloogia ja keskkonnakaitsega seotud tegevusi. Lisaks tegevustele on kogu üritusel ka tore ja sõbralik õhkkond, mis täiendab muid spordi- või kunstiüritusi. Selle festivalitegevuse põhieesmärk on see, et õpilased tutvustavad oma õpetamisprotsessis omandatud oskusi ja saavad neid otse esitada otse oma klassikaaslastele, õpetajatele, vanematele või teistele otseselt kooliga mitteseotud isikutele. Paljud õpilased tegelevad mitmesuguste tegevustega ning nad jälgivad ning avastavad uusi asju mitteformaalse õppe põhimõtete kaudu, millel on liskas keskkondlik iseloom. Kevadise pidustuse ettevalmistamise struktuuri võib jagada kahte põhifaasi. Esimene etapp on ettevalmistav faas, mis nõuab eelkõige juhendajate abistamist. Teises faasis on õpilased aktiivsemad, nad esitavad oma oskused otse. Mõlemat etappi kirjeldatakse üksikasjalikumalt selle töö järgmises osas.

### **3.2 Esimene faas – ettevalmistus**

Sellel etapil keskenduvad õpetajad keskkonnahariduse erinevatele teemadele, mida nad arutlevad oma õpilastega üksikasjalikult. Nad õpetavad neid klasside ametlike õppetundide ajal. See etapp võtab kaua aega, mõnikord võib see olla mitu nädalat. Selle etapi raames valmistavad õpetajad koostöös õpilastega välja erinevad plakatid, töölehed, juhised, teemavaldkonnale vastavad materjalid. On hea, kui sel etapil jagavad õpetajad teemasid omavahel ja esitavad valitud teemat õpilastele, nad koostavad ettekandeid ja teavitavad õpilasi. Jagades erinevaid teemasid, on oluline, et ettevalmistusfaasis osaleks vähemalt 7-12 õpetajat. Mida rohkem õpetajaid, seda huvitavam ja mitmekülgsem on sündmus. Õpetajate kasutatav metoodika võib olla erinev, kuid see peaks olema kooskõlas kooli õppekavaga ja peaks võtma arvesse keskkonnahariduse põhimõtteid. Siin on mõned näited, mida saab rakendada ettevalmistavas etapis (üks õpetaja vastutab ühe ülesande eest):

- a) Õpetaja valmistab õpilastele ettekande piirkonnast kasvavate taimede kohta, selgitab nende tähendust (kasulik mõju inimese organismile). Entsüklopeedia abil saavad õpilased rohkem infot selle valdkonna üksikasjadest ja informatsioonist. Selle tegevuse jaoks sobilikuks tunniks on bioloogia ja 4-5 õpilast ühes grupis. Ettevalmistava etapi jooksul saavad õpilased selle teemaga piisavalt tuttavaks.

- b) Loodusainete õpetaja selgitab õpilastele, kui tähtis on joogivesi, esitab veefotot ja selgitab, kuidas on võimalik selle kvaliteeti mõõta (kool saab osta veekvaliteedi tuvastamiseks lihtsat kohvri). Õppetundides õpivad õpilased probleemi olemust ja suudavad mõõta veekvaliteeti. Nad jälgivad oma avastusi ja kirjutavad need märkmikusse.
- c) Kunstiõpetuses loovad õpilased keskkonnaküsimustega seotud töid. Nad võivad kasutada erinevaid kunstitehnikaid. Asjakohane on kasutada kunstistiili - Land art. Õpetaja võib pakkuda ka sellist teemat nagu mets, maa, planeedi kaitsmine reostuse eest, maastik ja nii edasi.
- d) Keskkonnahariduse raames loovad õpetajad 4-5 õpilastele töörühmi. Nad jagavad selliseid teemasid nagu looduskaitse, negatiivsed keskkonnamõjud, veereostus, metsade raadamine, kasvuhoonegaasid jms. Neid teemasid käsitlevad õpilased ettekannetes (PowerPoint) või plakatitel. Seega saavad kõikidest töörühmadest antud keskkonnaküsimustes "eksperdid".
- e) Tervisliku toitumise raames valmistab õpetaja ette õpilaste rühma, kes tunnevad ja saavad kogemusi taimsete teede valmistamisel. Õpilased teavad nende jookide positiivset mõju. Teine õpetaja valmistab ette õpilasi, kes valmistavad kergeid einet, mis on peamiselt köögiviljadest - nt erinevate täidiste ja määretega kevadrullid. Need õpilaste rühmad ei õpi mitte ainult teed ja kevadrulle valmistama, vaid õpivad ka oma kliente (külalisi) teenindama ürituse toimumise ajal.
- f) Inglise keele õpetaja valmistab ette sõnavara teema jaotisest "Inimene ja loodus". Sõnastik on seotud keskkonnaküsimustega. Õpilased omandavad sõnavara. Nad koostavad koos õpetajaga erinevaid keelelisi ülesandeid ja töölehti, esitavad nad sündmuse ajal.
- g) Kunstiainete kontekstis saab õpetaja koostöös õpilastega luua looduslikest materjalidest (lehed, kivid, koonused, harud ja muud loodusobjektid) ilusad pildid ja kunstiteosed. Peamine mõte on ühendada loodus kunstiga. Sellisel viisil saavad õpilased, kellel on kunstilised anded ja tunnetus, aktiivselt osaleda sündmuse organiseerimise protsessis.
- h) Nooremad õpilased saavad lihtsalt õppida tundma jäätmete eraldamist. Õpetaja selgitab neile värve, mis näitavad, milline prügikast on õige mingit kindlat liiki

prügi jaoks. Selline õpilaste töögrupp saab luua oma ämbrid ja värvida neid. Õpilased õpivad jäätmeid õigesti eristama ja sorteerima.

- i) Lisaks eespool nimetatud keskkonnategevusele võivad õpetajad selles etapis valmistada ka spordiüritusi, nagu näiteks aktiivsed mängud, pallimängud jne. Lisaks saavb muusikaõpetajate juhitud õpilaste rühm valmistada ette tantsuetendust või valmistada ette esitamiseks laulu.

Kõigi nende tegevustega saab rikastada kooli tavapäraseid tegevusi, kasutades õpetajate kujutlusvõimet ning nende kogemusi ja oskusi. Selles etapis töötavad õpilased erinevate õppetükkide ajal gruppides ja täiendava koolitöö käigus on õpetaja nende koordinaator ja juhendaja.

### **3.3 Teine faas – esitus**

Pärast ettevalmistusetappi järgneb esitusetapp, kus õpilased tutvustavad oma teadmisi ja oskusi. Koolisündmus, meie puhul "kevadfestivali pidamine", mis kestab terve päeva või algab kohe pärast õppetundide lõppu ja kestab mõni tund vastavalt kooli tingimustele ning õpetajate kokkuleppele koolijuhiga. Iga õpetaja, kes on oma õpilased ette valmistanud, paigaldab kooli õuealale (hoone ümber või kooli aias) lauad, vajalikud töövahendid, letid, toolid jne, kus õpilased tutvustavad oskusi nii oma klassikaaslastele kui ka teistele külalistele, kes osalevad sellel üritusel. Sissepääs on tasuta. Selline sündmus tuleks ette valmistada avatud päevana, kus vanematel ja üldsusel on võimalus õpilasi otse tööd tegemas näha ja seda otse koolikeskkonnas. Tavaliselt on sündmusel õpetajate, õpilaste, lapsevanemate ja kohaliku elanikkonna vahel suhteid hõlbustav ja sõbralik õhkkond. Kõigi nende inimeste kohtumise ajal toimub teadmiste vahetamine keskkonnateaduse alal. Taolise sündmuse kasu on järgmine: õpilased tutvustavad oma teadmisi, näiteks teavitades külastajaid (teisi õpilasi, lapsevanemaid ja teiste ainete õpetajaid) taimede. Infot saavad ka teiste õpilaste rühmad. Need, kes serveerivad külalistele taimeteed ja kergeid eineid. Mõned inimesed saavad oma kodudest, kaevudest, pudeli sees joogivett tuua vet ja siis professionaalne õpilaste rühm analüüsib seda vett ning teavitab külalisi vee kvaliteedist ja seisundist: Ka teised õpilased võivad seda analüüsi proovida, et õppida ja omandada teadmisi antud teemal nagu nende klassikaaslased on teinud. Selle keskkonnasündmuse külalised saavad väärtuslikku teavet ning samal ajal saavad õpilased oma teadmisi esitada valdkondades, mida nad on

ettevalmistusfaasis põhjalikult ette valmistatud. Selle ürituse korraldamine sobib ka koolide jaoks, kui õpetaja ja lapsevanema vahel võib olla negatiivne takistus. See on väga hea võimalus negatiivseid suhteid kõrvaldada ja ületada ning samal ajal vältida eelarvamuste teket tulevikus.

Selle sündmuse (tegevuse kaudu) kaudu tahtisime näidata, kuidas keskkonnaküsimusi saab koolikeskkonnas käsitleda, hoolimata asjaolust, et koolis ei ole tavaliselt keskkonnaharidust kohustuslik või vabatahtlik aine. Sellisel viisil õpetamisprotsessis õnnestub edukalt rakendada looduse ja keskkonna mõisteid. Lisaks sellele tugevdatakse selle tegevuse kaudu õpetaja-vanematevahelisi suhteid, mis on olulised hea kliima loomiseks koolikeskkonnas.

### **3.4 Fotogalerii sündmusest “Spring Celebration” (“Kevadfestival”)**



















#### **4. KOKKUVÕTE**

Selles töös oleme näidanud võimalusi keskkonnaküsimuste edendamiseks koolikeskkonnas nii CLIL-i õppemeetodite kasutamisel kui hiljem mitteformaalse hariduse abil. Meetodite näitamiseks korraldasime koolisündmuse, kus õpilased tutvustasid oma oskusi. Me peame keskkonna ja looduse kaitsmise tähtsust tänapäeva maailmas üheks peamiseks prioriteediks, seega peame keskkonnateemasid tänapäeva noortele väga kasulikuks. Tahtsime juhtida tähelepanu õpilastega töötamise erinevatele vormidele ja meetoditele, et tõsta õpilaste teadlikkust olulistest teemadest. Paljud tegevused on aktiveerivad ja nende kaudu on õppurid motiveeritumad ja rohkem avatud neile ette nähtud ülesannetele ja probleemidele. Selle õppeprotsessi loomupärane osa on õpetajad, kes aitavad õppimisprotsessi parandada mitte ainult oma teadmiste ja oskustega, vaid ka nende loovuse ja kogemustega. Selles töös pakutud õppetundide struktuurid on näitlikud ja oleme rahul, kui teised õpetajad muudavad ja kohandavad neid oma õppekogemuste ja -vajadustega vastavalt oma koolikursustele ja õppekavale. Loodame, et ühiste jõudude abil suudame luua järgmise põlvkonna jaoks parem, keskkonnasõbralikuma maailma.