

Eco-School Educational Programme

As part of the project *TÁMOP-3.1.1-11/1-2012-0001 21st Century School Education (Development and Coordination) 2nd Phase* of the Social Renewal Operational Programme, the Hungarian Institute for Educational Research and Development coordinates the development of the Eco-School Educational Programme, which is scheduled to be published and made available to all public education institutions in 2015.

Close to 100 modules have been developed as part of the programme. A module is a teaching/learning module of at least 3 lessons with detailed session plans, which can be used both within and outside the curriculum. Additionally, the modules are well suited to the thematic days and weeks, projects, field exercises and community service sensitisation programmes frequently organised in primary and secondary schools. Modules can be adapted in whole or in part, adjusted to the local circumstances of each school.

Module themes were defined on the basis of partner institutions' good practices, the research findings obtained prior to development, and the criteria for awarding the Eco-School title. The modules were developed by 60 teachers in 10 partner institutions. All of the modules have been tested and most have also been adapted in other partner institutions as well. Feedback from module authors and comments from other teachers involved in development were used to produce the first version of each module, which was finalised jointly by HIERD professionals and the author.



photo: Field session with learners at Flóris Török Primary School

The partner institutions involved in the Eco-School Educational Programme have tested and adapted 15 modules in their own institutions. The following feedback has been received on module sessions:

“Adapting the modules has been beneficial for school life. The school has become more open, and its network has become wider.”

“The development process enabled the involvement of parents, providing parents with a better insight into school programmes and the work between teachers and learners.”

“The varied programmes have also attracted the attention of colleagues who are less interested in Eco-School programmes, which strengthened the team spirit at our school.”

“Several modules have been integrated into our school’s teaching practice, which resulted in additional innovation.”

“Learners were amazed and highly fascinated while covering the themes addressing global issues. The programme made them want to take action.”

“Our grade was given the task of taking our favourite pets to school and introducing them to our fellow students. I was so excited that I couldn’t sleep at night. Everyone provided interesting information. This was the first time I’d seen a degu close. I’ll always remember the day.”

Currently HIERD is involved in the development of a mentoring system for base schools. The task of base schools is to mentor the implementation of the *Eco-School Educational Programme* at other institutions. In base schools, teachers assigned with the task design demonstration material to promote the educational programme, and organise demonstration sessions to introduce the modules to teachers of neighbouring schools.

For more information on the *Eco-School Educational Programme*, visit HIERD's website at

<http://www.ofi.hu/node/170423>



photo: Building a willow hut with learners at József Hild Vocational School for Construction

The Eco-School title is awarded to educational institutions the institutional programme of which includes rational and systematic education for sustainability as a daily practice. Schools that are awarded the title of Permanent Eco-School have demonstrably been advocating the case of education for sustainability for at least 6 years.

Educational schools awarded the Eco-School title automatically join the Hungarian Eco-School Network coordinated by HIERD.

The titles of Eco-School and Permanent Eco-School are awarded through applications. The call for application is currently announced annually by HIERD on behalf of the Ministry of Human Resources and the Ministry of Agriculture.



Submissions are received on a continuous basis:

<http://www.ofi.hu/palyazat/palyazati-felhivas-okoiskola-es-orokos-okoiskola-cim-2014-elnyeresere>

Eco-School modules

1. “Play is joy, ground is grief”

Module author: Mária Wiesnerne Németh – Lajos Bárdos Bilingual Primary and Grammar School, Lágymányos (Budapest)

Brief description of the module

The sessions of the module have been designed for the age group of 6 to 14 years. Working in groups or pairs, learners explore the playground near their school as an initial task. As part of this, learners map out what they like (JOY) and what they do not (GRIEF). For example, a JOY is a particularly beautiful living environment deserving to be protected, and a GRIEF is the absence of enough interesting toys. During the module, learners are also involved in a development process: they have to invent and produce mock-ups of toys that transform a playground of grief to one of joy.

Brief description of the module process:

1. Collectively, learners explore the playground near their school and create a map of joys and griefs about it.
2. Learners design two logos, one titled “PLAY IS JOY, GROUND IS GRIEF”, and one titled “PLAY IS JOY, GROUND IS JOY”.
2. For places of grief, learners design toys.
5. They create mock-ups and models based on their designs (by reusing waste).
6. They stick the photos of the mock-ups and models on the appropriate places in the map.
7. An exhibition is staged to display the objects and models created during the sessions.

Module objectives

Learners should

- pay more attention to their immediate environment;
- try to find a real solution to the problem encountered;
- think, try, create;
- listen to their peers’ ideas;
- collaborate and cooperate;
- acquire knowledge by playing;
- develop their manual and communication skills.

A characteristic of the sessions is that the works created are discussed, but not rated. Every idea expressed by a child is taken seriously. In this way, the module also has the objective to enable more frustrated children who find it difficult to express themselves to ease up and form their opinions.



The module builds on the method of creating “maps of joys and griefs”, which has been used by environmental teachers for two decades. The method developed in Hungary can be conceived of as a true-to-life and easy-to-understand way of mapping out environmental effects: a tool of shaping and reinforcing identity, which is suitable and important for a variety of communities. The school organised an exhibition to display the playground mock-ups, to which the municipal architect of the district and a senior lecturer from the Faculty of Architecture of Budapest Corvinus University were also invited. The professionals were overwhelmed by the children’s work and the process of designing the playground, which inspired them to create an opportunity to display the children’s mock-ups in an exhibition as part of an international conference hosted by the University of Horticulture.

The learners and their teacher attended the opening of the exhibition as guests, where the children could present the exhibition themselves, talk to a number of professionals and the University Dean. Hopefully, for students of architecture and architects what they have seen and heard will serve as a model. To ensure that the children receive reinforcement, the municipality will make efforts to construct at least one of the items suggested by the children in a playground of the district concerned.

2. “Energy-Wise”

Module author: Edit Zihali-Szabó – Felsővárosi Primary School (Gyöngyös)

Brief description of the module
The module has been designed for the age group of 11 to 14 years. The theme of the module is built around the current issues of the global energy crisis, in the context of which learners are involved in mapping out our school’s habits of material and energy consumption (heating, water, lighting, electronic equipment), in a survey of the efficiency of those habits, and in finding ways to reduce energy consumption.
Brief description of the module process:
<ol style="list-style-type: none">1. An introduction to the issues of the energy crisis, including their causes and consequences (teacher’s presentation).2. Comparison of the lifestyles of contemporary families to those of grandparents in terms of their energy use.3. Teamwork to create the energy map of the school by keeping an observation log.4. Formulation of ideas and suggestions for more efficient energy use.
Module objectives
Learners should
<ul style="list-style-type: none">– become familiar with energy saving practices;– try to recognise faults in energy use and energy waste;– think and find real solutions to energy waste;– become familiar with their grandparents’ energy use;– recognise the energy wasting lifestyle of today’s civilised man;– collaborate and cooperate.

The author designed the module to be implemented as part of a thematic day (or design and technology class, or study group). The theme itself is complex and focuses on an important and real problem, which is why more time should be spent on exploring it. With that in mind, a thematic day is a particularly good framework for processing it, and gives students an opportunity to learn by doing.

The teacher built evocation on prior collection work. Learners were asked to collect images of older and modern electric household appliances, and could also bring in the objects themselves. Evocation was facilitated by a projected presentation prepared by the teacher, which provided a basis for a meaningful discussion while it was also suitable to pool learners’ knowledge acquired so far on the subject.

After getting into small groups, learners discussed energy use in the old times and today, and used this information to create a poster. A disadvantaged and challenged boy stood out among the children. He still knew the household

appliances used in the old times, he knew what a wood cooker was, what a pantry was before the fridge came in, etc. This knowledge made him the centre of attention, and despite his faltering speech, he asked to speak during the poster presentation. The module had the huge benefit of spontaneous integration.

Subsequently, the children went on a “mission” in their school to locate the places where energy was leaking. They investigated in four areas: water, heating, lighting and electric appliances. Learners inspected the building and asked for permission to enter other classrooms and offices on their own, during which they observed, counted, looked for problems, asked, measured, and recorded their data in a table. They were very enthusiastic about the task, and felt the “severity” of their work. The small group successfully integrated problem learners as well, since everyone had a task that suited them well. Learners were required to observe a well-prepared theme in a real environment outside of the classroom, during which they could observe and give feedback.

The small groups summarised their measured data on their posters. After fact finding, they formulated the problems in each area (signs of defects or energy waste), then offered suggestions for operating the school more economically. The children made marvellous observations, and both the approach to and the coverage of the theme were steered well by the teacher. The reports of the groups included their conclusions and suggestions.

The children remained active and energised throughout the learning process. This was due partly to the teacher’s dynamic and direct character, and partly to the methodological approach to the theme.

3. Renovation of the Fóti-Somlyó interpretive trail

Module authors: Zsuzsanna Tóthné Selmeczi and Erzsébet Tolnai – Lajos Bárdos Primary School (Dunakeszi)

The module is a good example of sensitisation to activities to be performed in community service, introduced progressively from the 2012/13 academic year. Originating in the United States and England, activities of community service (service learning) are integrated into the education of young people in a growing number of countries. International experience is that such activities improve young people’s self-knowledge, and also make career orientation easier for them. There is a wide range of community service activities available, and environmental and natural protection is one of the 7 priority areas. This is why we were delighted to develop this module: it specifically exemplifies how learners, in line with the objective of the module, become open to the problems of their environment, and how they can improve the conditions of their surroundings.



The children participating in the renovation were ardently involved in digging, pruning, drilling, and screwing. The activities were arranged into groups according to the children’s strength, interests and commitment. The accompanying teachers saw to adding variety to the programme through pleasant activities: when installing the signs, they introduced learners to the plants native to the habitat, they had learners recite “Song of Fót”, a poem about wine by Mihály Vörösmarty, and also remembered soda (spritzer), an invention of Ányos Jedlik.

Brief description of the module

The module has been designed for the age group of 13 to 14 years. As part of the module, learners are introduced to the Fóti-Somlyó interpretive trail, located in the territory of the Danube-Ipoly National Park, and provide active assistance for its renovation and maintenance.

Brief description of the module process:

1. As a starter, learners refreshed their knowledge of national parks in Hungary. They placed special emphasis on the Danube-Ipoly National Park, which is the closest to their school.
2. During evocation, with the help of a short film about Fóti-Somlyó and the guidebook of the interpretive trail, learners were introduced to the conservation area of Somlyó, and the trail waiting to be renovated.
3. In the course of the actual programme, the information and direction signs previously created by the staff of the national park were installed by the children in the appropriate locations.
4. After installing the signs, they prepared the sandy bank for the arrival of the bee eaters.

Module objectives

Learners should

- become familiar with the natural assets of their immediate surroundings;
- recognise and value the work done by others, develop their interest in and respect for other people;
- be interested in voluntary participation.

4. “The Apple Case”

Module author: Angéla Trescsik – Lajos Bárdos Bilingual Primary and Grammar School, Lágymányos (Budapest)

Brief description of the module

The sessions of the module are centred around apples. This complex theme provides an excellent opportunity for awareness raising and environmental education. The motives of the apple and the apple tree are present in ethnography, the arts, literature, history, and the Bible. Apples are also a part of our daily lives, an element of a healthy diet, as well as of our festivities and traditions.

Brief description of the module process:

1. From a list compiled in advance, children can select the area of research they would like to explore individually or in small groups.
2. The list is compiled by school staff and ZöldDök (Green Student Self-Government), but items may also be added by the children participating in the module.
3. By the end of the project, the children prepare their own portfolios of the “apple case” about their discoveries and the knowledge they have acquired.
4. The finest works are displayed at an exhibition in the school.

Module objectives

- Awareness raising through discovery learning and research;
- Familiarising the concept of fair trade;
- Education for consumer awareness;
- Education for healthy eating;
- Taking responsibility, developing a sense of responsibility.

The module was centred around apples. The theme was explored in a complex way by learners and teachers. For the winter break, learners were given the task of preparing their own “apple cases”, each collecting their own knowledge about apples in a special folder. The cover of each folder carried the image of a cabinet. Based on the list of research areas compiled by ZöldDök (Green Student Self-Government), learners had to search for poems, tales,

Biblical stories, and symbols. Parents could also join in the collection and research. The teachers conducting the sessions used the materials collected to prepare the tasks to cover the theme.

The first session was conducted in a grade 4 language class. The session spanned two lessons and was carried out in groups by alternating conceptual and practical tasks. An outline of session activities:

1. group formation, choice of a group name;
2. learning about apple varieties;
3. selection of specialist literature based on the research materials prepared by the children on a range of tasks (e.g. collect poems on apples), with a different task assigned to each learner;
4. preparation of the “apple case” portfolio from the materials collected;
5. what’s under the cloth – a tactile game involving apple juice, dried apples, etc.;
6. portfolio evaluation with short questions on each topic, awarding correct answers with paper disks;
7. coverage of a story on apples using a task sheet;
8. preparation of a fruit salad.



The second session was conducted in a grade 4 music class. The session spanned two lessons and consisted of two parts. The first is presented below, and in the second the groups prepared joint boards from the materials collected in their portfolios. The children prepared beautiful and spectacular portfolios. For the sessions covering the theme, the tasks were prepared in envelopes in advance for each group.

1. selection of a name and a speaker by each group arranged in advance;
2. interpretation of two works of fine art (one representing a bowl of fruit and the other a scene of apple harvest), raising the importance of consuming locally produced fruit;
3. matching idioms and proverbs with their meanings;
4. drawing idioms and proverbs, followed by discussion;
5. grouping expressions related to apples, followed by discussion;
6. coverage of a text about the health benefits of apples – this was done using a highly interesting technique of cooperative learning called “expert mosaic”, in which children numbered themselves from 1 to 6, then numbers 1-2, 3-4 and 5-6 from each group gathered around their passages of a text, which had been divided into 3 parts in advance and posted on the walls. After reading their passages, the children had to share the contents of the text with their groups. When they have become familiar with all of the passages, a speaker of each group had to give an account of what the text was about.

The aim of the third session was to create “apple case” portfolios in a grade 5 class.

1. Understanding the Hungarian word “almárium” (literally a ‘sideboard’, a ‘cabinet’, a ‘case’, offering a playful analogue with Hungarian “alma”, meaning ‘apple’) using a PowerPoint presentation;
2. Understanding the word “almárium” using specialist literature (Concise Explanatory Dictionary, Lexicon of Ethnography, local history textbook, etc.), working in groups;
3. Creation of personal “apple case” portfolios by designing the cover of a folder with the image of a cabinet.

Overall, we have seen the implementation of an exemplary module. Its methods, theme and structure clearly reflected the efforts of reform pedagogy underlying environmental education. The children worked collaboratively in groups, they had the opportunity to talk, no-one was lagging behind, playful exercises were alternating with practical and conceptual ones, and apparently all participants felt good about the process. The children were inspired to think by the fact that preparation was based on their own work, which enabled them to become involved in the learning process, while their teacher helped them from the background.

4. “Classroom Suite”

Module author: Tamásné Széky – Flóris Török Primary School

MODULE DESCRIPTION

Brief description of the module

Children spend a major part of their days in the classroom. It is important for them to notice the weaknesses, strengths and opportunities of their closer surroundings, and to shape it deliberately. They should express their need for change, align this need to opportunities, and implement the changes.

Brief description of the module process:

1. Learners form groups by piecing together pictures of old and modern classrooms.
2. They compare the pictures to their own classroom.
3. In a situation game, the children form a tableau to point out specific functions of the classroom.
4. The groups complete the sentence “A good classroom is ...” from a variety of perspectives.
5. They map out the joys and griefs of the classroom.
6. They look for solutions to eliminate the griefs. Plans are prepared to convert and improve the classroom.

Module objectives

- Examination and conversion of the learning environment;
- Raising children’s interest in the conversion and protection of their surroundings;
- Education for sustainability, deliberate shaping of the environment;
- Feeling of belonging together, reinforcement of environmentally aware behaviours;
- Development of social skills;
- Adoption of a positive attitude.



The group of grade 6 learners is a close-knit community. They were motivated by the title and looked forward to what would happen. During the 3 lessons, everyone was interested and active. The theme was covered in small groups. Throughout the session, they were encouraged by the fact that it was about them, and there was an opportunity to improve their own classroom space. This very strongly motivated the young teens. The competitive spirit also played a role as an age-specific feature; their classroom would be different from the rest in the school e.g. because it would have a “panic room” (a closer area where they can withdraw). The opportunity to implement their plans threw learners in a fever.

At this age, in grade 6, children consider their own community very important, and they like to express their opinions and criticisms. The module provided an opportunity for all this. There was room for ideas about the classroom, some of which will be implemented as well.

We have seen a logically structured module session. After forming groups and evocation, the learners explored what makes a good classroom. They completed the sentence “A good classroom is ...” from the perspectives of the cleaning staff, the headmaster, the form teacher, and the learners. They shared their ideas in a group catch exercise. After this, in small groups they drew up a list of joys and griefs, based on which joy signs and grief signs were posted at various points of the classroom (indicating places they liked and those they did not). The teacher wrote the list of grief points on the board, asking each learner to choose one and think individually about what and how they would change. Learners who had chosen the same issue continued the work on solution planning in small groups. They presented their posters to one another, then “liked” one other’s work. At the end of the session, they discussed the feasibility of their plans.

The children were active participants in the session. They felt that they owned the problem, and wanted to find a solution to it. Through a real problem situation, they explored the theme in a complex way. The teacher remained in the role of the attendant.

The most popular modules of the programme: The Invisible School; The Goose-boy’s Herbs; Boot Adventures; Willow Hut Building; A Visit to Carol Crane; The Apple Case; From Moss to GPS; Lucy’s Soil; My House, My Castle; Hammer and Nuts.

Katalin Néder