

SUSTAINABILITY MAP

AUTHOR: Centrum environmentálnych aktivít (Center of Environmental Activities)
SLOVAKIA, Trenčín www.cea.sk

1. NAME OF THE MODULE

Sustainability Map

Subtitle: Local Environmental and Cultural Heritage – considering changes in our communities over time

2. BASIC INFORMATION ABOUT THE MODULE

Motivation quote:

“Who cuts the roots, awaits the fruits in vain.” Antique proverb

Target group: **12-14**, after some adaptation: high school students as well as younger students

Duration:

- **Introductory activity – 1 lesson in the classroom 45'**
- **Field study – 2 lessons outside the school 2x45'**
- **Presentation of results of the field study + map development - 1 lesson in the classroom 45'**

Competencies used in Slovakia :

- **Mother tongue**
- **Historical heritage**
- **Effect of human activity on the environment**
- **Communication competencies**
- **IT competencies**
- **Social competencies (personal and interpersonal)**

Subjects: **Geography, Biology, History, Civic Education, Environmental Education**

Keywords

Local cultural and natural heritage, traditions, sustainable way of life, sustainable development

Summary of activities – introductory lesson is marked by green colour, field study by blue, and final lesson by grey

Number	Title	Method	Duration	Group dynamics	Location
1. activity	How did a city/village/settlement look like in the past?	Individual work	10'	Individuals or pairs	indoor
2. activity	What can be interpreted from old pictures?	Directed discussion	10'	big group (class)	indoor
3. activity	First steps of a sustainability map	Individual work	10'	Individuals or pairs	indoor
4. activity	Assigning the field study	Explanation, Organization, Assigning tasks	15'	big group (class)	indoor
5. activity	Discovering footprints of the past and sustainability elements	Field study	85'	smaller groups	outdoor
6. activity	What has been discovered?	Assigning homework	5'	big group (class)	outdoor

7. activity	Exchange of experience	Directed discussion	20'	big group (class)	indoor
8. activity	Sustainability map	Map design + discussion	25'	big group (class)	indoor

3. OUTLINE OF THE MODULE:

Summary - short summary about the topics, goals, depending correlations, and impact of the module activities

Our city/village and the surrounding landscape – our home: What is unique about it? Unusual? In which ways was life here more interesting, lovely or better for citizens in the past? In which ways is it better now? Why does it make sense to live here? What do we want our city or village to be like in the future? What are the elements of local sustainability?

Goals - direct goals and attitude formation, reached by the activities

The goal of the module is to increase students' awareness of sustainable way/quality of life: to promote their attitude to the local landscape, to show exceptionality of the place where we live, to map development of the town/village and the surrounding landscape in historical connections, to stimulate students to think about life of the previous generations who have shaped place of our home as well as about chances and opportunities for its further development.

Tools and materials, sources - Physical tools and materials needed for the activities. Sources for research during the activity.

- 1. block : old photographs, pictures of the town/village, up-to-date map or plan of the town/village, string, pins**
- 2. block – field study: for each group a worksheet, pens or pencils, clipboard**
- 3. block: pins with “flags” of different colours to mark sustainability elements on the map**

Preparations - what shall be done before we can start.

Homework for students before 1st lesson: **Bring old picture postcards, reproductions of old paintings or old pictures of our village/town and its surroundings. Ask parents or grandparents to look through old photo albums together with you, and pick out decades old pictures showing the square, streets, a monument, church, market-place, park, railway station, memorable tree, forest, protected landscape area, river and life by the river, statue, old shops, cultural event, life in the town... You can search for the interesting old photographs of your town on the Internet as well. If possible, print them. On the back side of each picture put your name, year when the picture was taken, and also what is in the image (if it is not quite clear). If an interesting story accompanies the picture you can prepare it as well.**

Teachers: **Homework for students should be assigned quite ahead of time so that they have got enough time for preparation** (at least two weeks in advance, and a week before the class students should be reminded of the task). **Just in case make your own collection of old pictures. To**

present the pictures, prepare a board and paper sticky tape (to attach the pictures from the back side). **Then you will need a town map, ball of string and pins.**

Connection points - how does the topic connects to daily life experiences of kids? Nice way to reach their attention!

How many dustbins, benches and flower beds are there on your way to school? Is there any building, statue or artefact from the past you are proud of in your town/village? What is your favorite natural place in the surroundings?

Implementation – list of the activities

I. block:

10': Exhibition of pictures

Students attach pictures or picture postcards of the village/town they have brought from home to the board or they can be displayed anywhere else. If there a lot of pictures they could be exhibited in groups: monuments, streets/the square/interesting buildings, nature, culture/life in the city, crafts/trade/market-place etc.

10' Discussion about the content of the pictures

Motivation questions: Which picture is the oldest? What doesn't exist anymore? Which buildings or events do not exist anymore? Where was the picture taken? What surprised you the most about the pictures? Was there more greenery in the village/town in the past? Were there more people/was there more traffic in the streets? What can be said about the life of people in the past from the pictures? Were the streets tidy? Were the public spaces neat? Which shops or services can be seen in the pictures? Would like to experience to live for a week at the time when the picture was taken? What would be different? Which common things wouldn't be available? What would such an experience mean for you?

10' Connecting the pictures with the map

The most interesting pictures are placed next to the map. The specific places from the pictures are marked on the map by a pin. Then connect the pin with the picture by a piece of string.

15' Explanation of next steps, assigning tasks, division of students to workgroups

Students are divided to groups based on their priorities for the field study or based on teachers' preferences with regards to the sustainability map. Their task is to find unique, interesting, remarkable places which generate local cultural and natural heritage as well as different kinds of sustainability elements, and record their location for the sustainability map.

The groups will get worksheets with tasks (see point 4.)

II. block (2 lessons of field study)

Students work in groups of 3-6 students (as they were divided at the previous lesson), and try to find and record answers to questions and tasks from the worksheet. Each group of students should be accompanied by a teacher or another adult (ask your colleagues or parents for help). Experts from local institutions (museum, information or cultural center, environmental office etc.) might also help. Each group of students should have at least one camera, worksheet, clipboard, pens or pencils, and plan of town/ neighborhood.

Homework before Block III:

- 1) Students have to fill in the table on page 1 of the worksheet
- 2) Students should make a list of elements of local sustainability for a given theme (see worksheet, page 2). They can search online or ask their parents for help.

Tips for extension activities related to the field study – each group of students would need a camera:

- 1) **Students pick a few pictures/old postcards from the board, and take them to the field trip. They find the exact places, where the old ones have been taken, and from the same place (if possible) they make new pictures. Couples of pictures are exhibited in class. What can be said about the changes? What would the impression of a visitor from abroad would be about the quality of life now and in the past?**
- 2) **Groups of students make pictures during the field trip and prepare power point presentations about what they have seen and experienced relating to quality of life and sustainability in the field they explored.**

III. Block (1 lesson in the classroom)

5' plan of the lesson, motivation warm-up activity: What examples of sustainable city elements have students explored elsewhere (on their holiday etc.)?

10' Past and present: discussion about results of the field study (page 1 of the worksheet)

Which aspects of quality of life in the town/village were better in the past? Which are better today?

What was the most surprising finding? What should all the citizens be aware of?

25' Final work on the sustainability map

Based on findings from the field study as well as filled out worksheets (page 2), sustainability map is made. At the same time, students discuss if it is possible to combine all the best things from the past with the best things from the present time for the future.

5' Final thoughts, students' reflections on their experience and new knowledge gained throughout the activity.

4. STUDENT'S PAGES – Easy to copy and give to children
Worksheet page 1

Past vs. Present in our town/village: When Was It Better?	In he past	At present
When were there more trees?	✓	
... were there more parks/flowers?		
...were there more smiling faces in the streets?		
... were there more cars parking on the pavements?		
... was it more attractive to walk in the city?		
... could one better hide in a shadow in case of hot summer days?		
... was life in the city better connected with life on the river?		
...was water in the river or lake cleaner?		
...were there more trees or tree alleys?		
...were there more opportunities to play football or relax in the green public spaces?		
...were there more citizens?		
...was life in the city more hectic?		
... were there more bikes in the streets?		
... was life in the city safer?		
...were the buildings in the city more beautiful?		
...was more natural building material used for the construction of roads/pavements? (natural stone vs. concrete, asphalt...)		
...were the streets of the city cleaner?		
...was there more litter in the streets and the square?		
...were there more market-places in the city?		
...were there more benches in the city?		
...were there more playgrounds in the city?		
...were there more sportsgrounds in the city?		
...was it safer to ride a bike?		
...were there more cultural events in the city?		
... was our town or village a better place to live?		

Green Economy, Energy, Farming, Housing, Institutions	Waste reduction and recycling
<ul style="list-style-type: none"> - Organic/family farms - Producers awarded regional trademarks - Local crats/arts (blacksmith, shingler...) - Small hydroelectric plant - Biomass heating plant - Green schools/ kindergartens - Forest schools/kindergartens - Low energy and passive buildings 	<ul style="list-style-type: none"> - Waste collection points - Secondary raw materials collection points - Old clothes collection points - Public bookcase - Public composting plant
Conscious consumption – shopping and services	Nature / Environment /Eco-tourism
<ul style="list-style-type: none"> - Organic/Eco shop (organic food, eco cleaning products/cosmetics...) - Shop with local products/crafts - Green shops (energy saving, waste reduction...) - Fair-trade café/tearooms - Farmers’ markets - Market-places - Organic boxes schemes - Milk machines - Restaurants with offer of vegetarian/vegan food - Non-smoking restaurants - Second hand book/clothing stores - Bicycle maintenance point - Shoe/clothes repair - Eco flower shop - Stationary with recycled paper 	<ul style="list-style-type: none"> - memorable tree/ park/ tree alley - protected landscape area/ protected landscape element/ protected site - nature trail/nature interpretation board - springs/artesian wells - natural/permaculture garden/community garden or orchard/botanical garden/arboretum - resources of raw materials - root wastewater treatment plant - view tower - bird watching - bike/non-motor boat/cross-country ski/skate rental - rain water collection - wetlands
Gentle mobility/Quality of public space	Events/People/NGOs
<ul style="list-style-type: none"> - Pedestrian zone - Walking bus stand - Park and ride - City bike stand - Bike racks - Benches - Electric vehicle charging station - Green public space - Facilities for disabled 	<ul style="list-style-type: none"> - Environmental NGOs - Eco-centers - Shelter for dogs - Local environmental authority - Open air cinema - Theatre - Festivals

5. TEACHER'S PAGES – Important materials for the teacher to show or read to students during an activity.

Sustainability map should be exhibited in the class, on the corridor or elsewhere where as many people as possible can see the result of your work.

The Sustainability Map is a tool to raise awareness about sustainable way of life. It shows where to go in the town/village to see or experience elements of a sustainable way of life, e.g. eco-friendly shopping/eating possibilities, eco-housing, tourism, mobility, etc. It also provides a way for new volunteers to learn about NGOs and individuals promoting sustainable way of life.

As for the format of the map, you can use colored pins with labels, and place the legend by the map. Or the map could be drawn by students from the beginning: the most interesting points will be marked on the map by using simple symbols.

Examples of sustainability maps from the US: <http://campusmap.ucdavis.edu/sustainability/> or <http://sustainability.tufts.edu/wp-content/uploads/2015-Eco-Map-11-19-151.pdf>

What are sustainable communities?

(Source: <https://www.nationwideeducation.co.uk/sustainability-education/teachers/12-16-sustainable-communities/index.php>)

Sustainable communities are places where people want to live and work, now and in the future. They meet the needs of residents, helping them feel included and allowing them to live a high quality of life with opportunity to reach their full potential.

Sustainable communities help to preserve the natural environment and promote values like equality and neighbourliness. They are safe, well run, well built and well serviced.

The United Nations believe that the key to implementing real change in sustainable development lies at the local level. For example, Agenda 21, launched by the United Nations in 1992, set out actions to be taken globally, nationally and locally to influence human impact on the environment. Nearly 180 world governments agreed to adopt the programme.