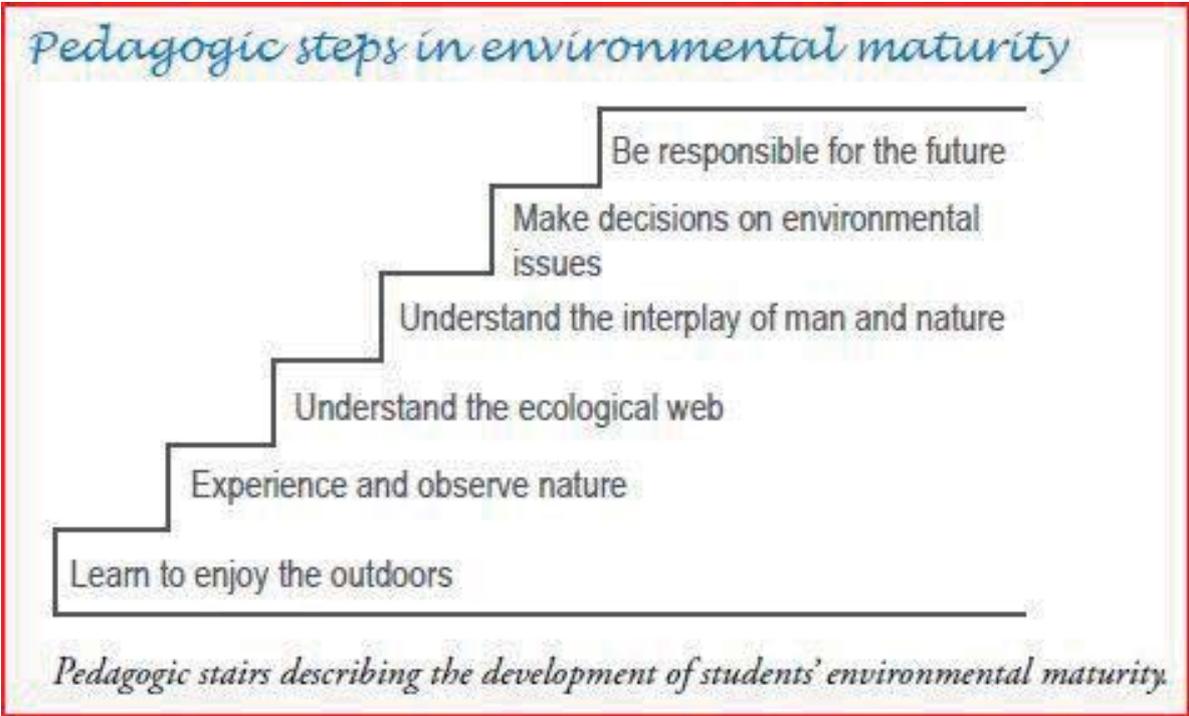


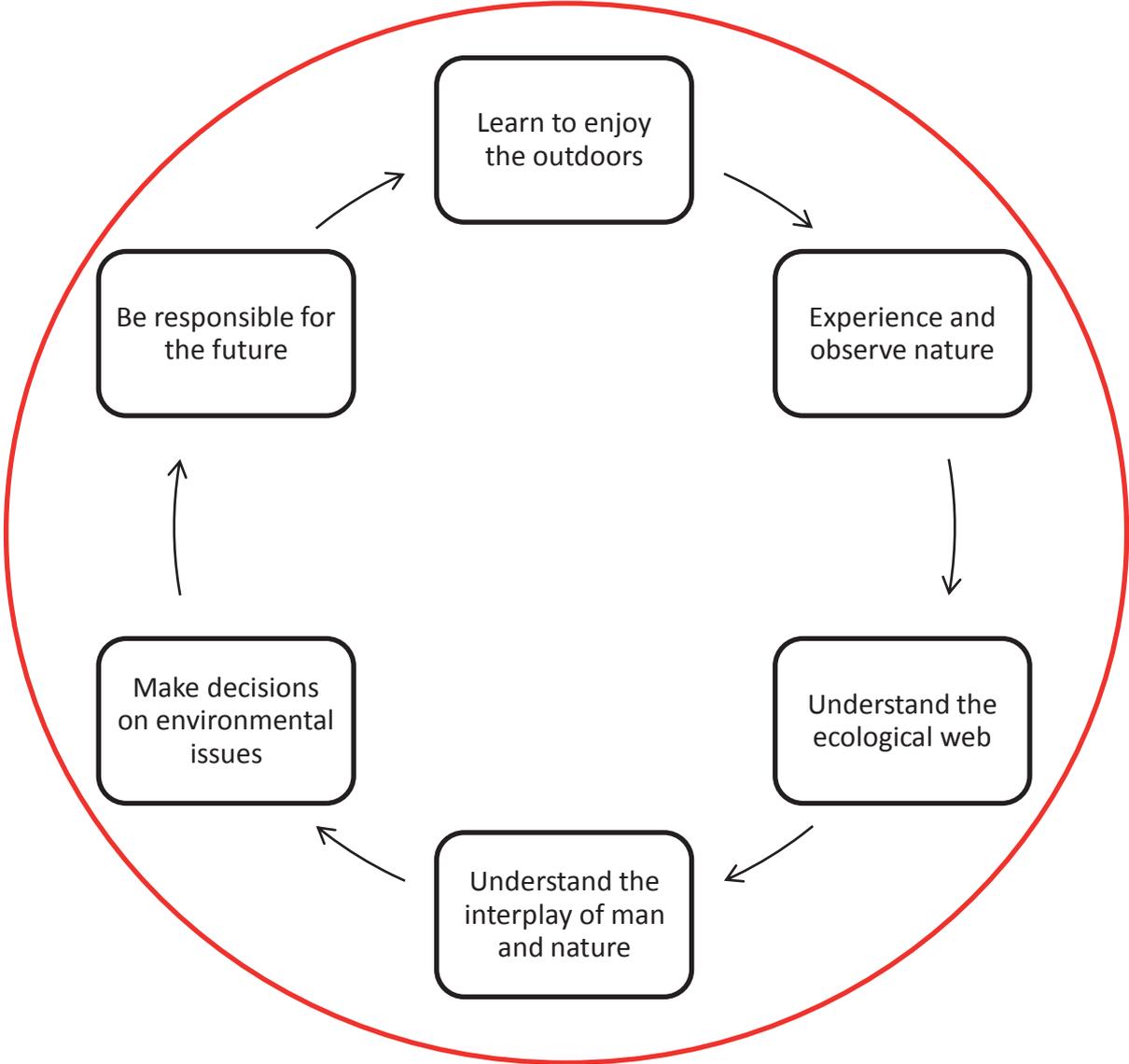
Quality standards for forest pedagogy, to achieve environmental education for sustainable development

To achieve the main principles of forest pedagogy, basic frames of quality standards need to be set up. These standards also describe what is required in order to deliver environmental education for sustainable development (ESD) with real changes in behaviour and attitudes amongst the participants. The standard describes six steps of pedagogical approaches with related activities. The six steps need to be repeated at different ages of participants. Relevant activities suitable for all steps must harmonize to age of participants and local forest conditions and relevant issues.

All activities should always follow the pedagogic steps in environmental maturity;



The steps can be repeated several times, but for each time the experience will advance, the knowledge increase and the horizon expand.



Step 1: Learn to enjoy the outdoors

To learn to enjoy outdoor activity is a practical sensitivity training. This means to have positive experiences and to develop a positive attitude towards the environment. This step is the most important level to start tuning your heart and feelings towards outdoor activities and to gain a general curiosity about nature, nature processes and human interaction with forests.

1.1. Example of activity – being outdoors

Spending time outdoors is the first criteria to learn to enjoy being outdoors. The use of senses will increase the experience by smelling, touching and listening to everything that is different from indoor life.

It is important to make the time a positive experience based on the children's terms.

Purpose

Testing climate

Preparations

Find a suitable day. Dress accordingly.

What to do

Go out in a forest and feel the weather. Let the pupils discover the area.



Photo: Anna Lena Albertsen, Norway

Discuss with the pupils, example of questions:

- What does this feel like?
- Does the forest look different now compared to other kind of weather?
- Does it stop us in doing activities? Can we for example still make land art?

Step 2: Experience and observe nature

To experience and observe nature is important to become familiar with nature's systems and different species. When doing observation activities in forests you will also get experience and personal relations to these issues. This knowledge does not change behaviour, but provides us with a better basis for reflections and personal adaptation of behaviour.

2. 1. Example of activity - Land art for children

Land art is making patterns, sculptures or drawings in the landscape using the elements of nature. Leaves, flowers, pinecones, twigs, pebbles, shells, anything from the nature may be used. The piece can be integrated in the landscape, or stand out. When finished, it is common to take photographs. Thereafter the creation is left to the elements of nature.

Purpose

The purpose of this activity is to become more aware of the diversity around you. The idea is to slow down and examine the surroundings. This is an exercise to make you more conscious of the different details, constructions, patterns and colours in nature.



Photo: Rainer Schall, Germany

Equipment

You do not really need anything, apart from the materials in nature. But it could come in handy with a basket to collect the items, and scissor (either normal ones or branch scissors). It is also a good idea to bring a camera, so that you can save your work.

Preparations

Find some examples of land art to give the children a better idea of what they are expected to do, and for inspiration. It is easy to find online by typing "land art (for children)" into Google Images. Do any of the pictures catch their interest? Ask them what they think it is made of. Would they like to make something similar?

What to do

To get the children started, give all of them the same task. Let them work together in groups to collect material; leaves, twigs, seeds, flowers, feathers, pebbles, etc. Thereafter they must cooperate to make a piece of land art. If possible, let the pupils take a photo of their work.

Step 3: Understand the ecological web

Learning about the ecological web is of importance to understand the interplay in forests. The knowledge and understanding of ecological interplay between single species, within different ecosystems and within bigger areas with many specific structures leads to a better understanding of nature's processes.

3.1. Example of activity - The food web

Purpose

The purpose of this activity is to learn about the food web and to become more aware of how the different species are interconnected and interdependent.

Equipment

Each participant needs a picture. The pictures should display different species, which belong in the local forest and are part of the same food web. Attach a string so it can hang from the neck.



Photo: Anna Lena Albertsen, Norway

In addition, the group needs a long twine/rope.

Preparations

Apart from the pictures and the twine, there is no need for other preparations. But it could be a good idea to introduce the pupils to the terms food web, producers, consumers and decomposers before doing the task.

What to do

This exercise can be performed indoors or outdoors. Let the pupils stand in a circle, displaying their picture so that everyone can see it. One person will start holding the twine. She must look at the other images, and decide which of the other species interacts with her own species. For example, if the person who starts has a picture of oak nuts, they may be food for a squirrel. She therefore throws the twine to the person with the image of a squirrel. The pupil with the squirrel then passes the twine to a person with the image of a cone (which the squirrel eats) or to a marten (which could eat the squirrel). This goes on until all the pupils have been included.

Ask the pupils if they realize what they have just made. Hopefully they will see that they represent the food web, and that the twine represents the connection between the species.

Remove one of the species. What is the effect of removing this species? Is it an advantage or disadvantage to the other species? Discuss with the pupils. If you would like, remove more species. What happens? Could all species eventually become distinct?

Step 4: Understand the interplay of man and nature

Understanding the interplay between humans and forests is crucial for understanding the potential conflict of interests that exist between different stakeholders. That is why the LEAF programme works with all aspect of the relationship between nature and people. The programme reflects all the functions forests fulfil for people; cultural, ecological, economic and social. Understanding the balance between these perspectives is crucial when studying how humans interact with forests.

4.1. Example of activity – exploring the forest

Humans have always used the forest, and we still do, although the way we use it may have changed over the years. By searching, one may find traces of both ancient and recent man-made activities.

Preparation

Find a suitable area for discovering human interaction in the forest.

What to do

Go into the forest and ask the pupils to find traces from people. It can be old settlements, telephone poles, signboards, areas of logging, roads and much more. What may look like untouched nature at first glance may still have traces of people.

Discuss with the pupils the findings, examples of questions to ask:

- What could be the reason for the human interaction?
- Is it related to business or pleasure?
- Was it necessary?
- Does it have any implications?

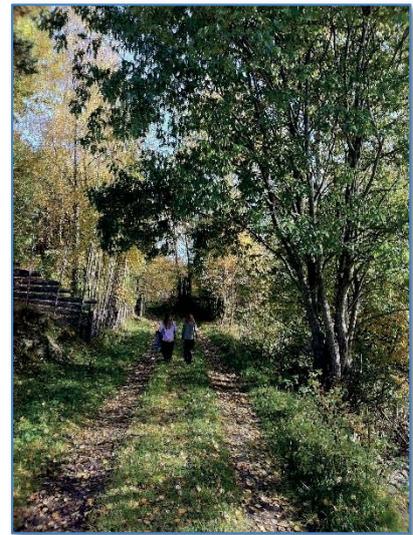


Photo: Nina Ree-Lindstad, Norway

Step 5: Make decisions on environmental issues

When understanding the interplay between forests and humans we will identify topics where there are conflicts of interest. When understanding the reason for different views, it is possible to make better decisions and take alternative actions. Skills for asking good questions are crucial to collect knowledge and reliable information. With a wide range of knowledge covering dissimilar perspectives, it is possible to work seriously with the conflict of interest between different opinions and to make up one's own opinion based on reliable information.

5.1. Example of activity - Conflicts of interest

Forests serve many purposes for people. Some have economic interests, some care about forests for its social and cultural values, yet others are concerned about the biological values of forests. All perspectives are equally important and are represented by stakeholders caring specifically for their own perspective. With more than one stakeholder, conflicts of interest can occur.

Conflicts of interest trigger democratic processes. It is important to give young people experience in participating in these processes and to see a case from different perspectives.

Conflicts of interests raise many questions

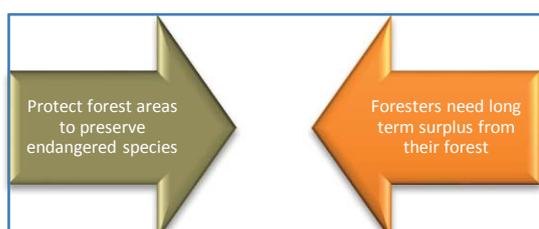
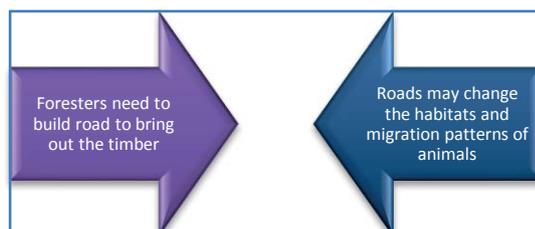
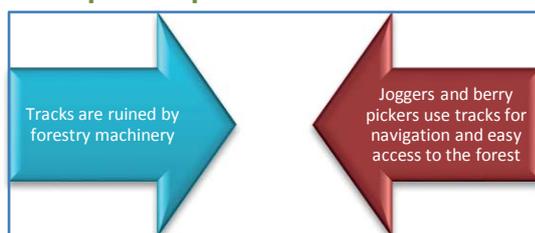
- Which of the stakeholder's interests can possibly trigger a conflict?
- Are any of the various interests more valuable than others?
- How do we measure what is valuable?
- Is it possible to find a solution that all parties agree with?



Conflicts of interests is a very suitable theme for project work

- Making news reports by interviewing different stakeholders
- Make a role play where pupils play out the conflicts
- Arrange a class debate with two or more teams arguing different points of view

Examples of possible conflicts:



Step 6: Be responsible for the future

In order to increase environmental awareness it is crucial to have an understanding of what sustainable development actually means, and what one self can do about it. Each and every individual are responsible for their own actions. Based on education and knowledge, modern citizens can make well-founded decisions to maintain and improve on a sustainable living. Working on responsibility issues spreads knowledge and attitudes to support future consumers and decision makers to make better choices.

6.1. Example - Images and objects – class activity

Preparation

Find 30 photos depicting 15 themes. Each theme has two photos, where one is considered more environmentally friendly than the other.

What to do

Each pupil chooses a picture, and the first task is to find the student who has a corresponding image. They have to look at each other's photo and figure out which images belong together.

Once all students have gathered in pairs, the next task is to figure out which photo's image is more environmentally friendly. They have to discuss the images and come up with a reason for their decision.

Next, the students are divided into two groups, one group having the environmentally friendly image and the other group the not so environmentally friendly image.

One by one, each student from the environmentally friendly group stands up and shows his/her photo and describes why it belongs to this group. From the other group the student with the corresponding image stands up and tells the reason for being in that group. The whole class decides whether they have come to the right conclusion.

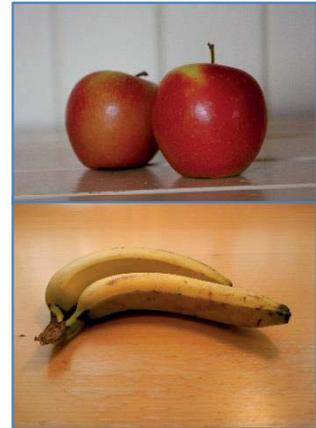


Photo: Anna Lena Albertsen, Norway



Photo: Nina Ree-Lindstad, Norway

