

# NNA

## Nature Conservation in the Classroom

4th Edition, Vol. 1, 2007



### My Region in the 21st Century

Education for Sustainable Development  
in Secondary Schools



Georg-Eckert-Institut  
für internationale Schulbuchforschung



**Niedersachsen**

Nature Conservation in the Classroom, 4th Edition, Vol. 1, 80 pages, Schneverdingen 2007

My Region in the 21st Century

Funded by the EU Community Initiative LEADER+



*Disclaimer:*

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all: GEI, Braunschweig

Print: Satz&Druck Kammel

Titel illustrations: Walsroder Zeitung Archive, Anna Sesyunina, Fotolia, Neubauwelt

Photographs of the “Waldjugendspiele” (forest games for young people): Bad Fallingbostel  
Secondary School

# Education for Sustainable Development in Secondary Schools

Project

## *My Region in the 21st Century*





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This publication is aimed both at teachers and at external persons who work with children and young people from Year 5 upwards. With this publication, we wish to make suggestions on the basis of our own practical experience of the many ways in which Education for Sustainable Development can be implemented at school.

How can topics like sustainable consumerism, global equality and local environmental protection be dealt with at school?

How can the ability to act, empathy and methodological skills be enhanced?

And where can we find space for creativity, fun and personal development?

Education for Sustainable Development is based on contents and methods.

There are many theories on ESD, some of which appear quite complicated.

Yet practice, in particular working with children and youngsters, consists of many small steps leading to diverse and often surprising results.

The work that is presented here is intended to provide vivid support and guidance along this topic, as well as ideas for implementation. We offer many different examples from practice and thus hope to meet different needs.

May this be a source of inspiration; please do feel free to reproduce the ideas presented here!

## *“My region in the 21st century”*

is the name of the project sponsored by LEADER+ and carried out by the Alfred Toepfer Akademie für Naturschutz in cooperation with the Georg Eckert Institute for International Textbook Research in the region “Hohe Heide” (Lüneburg Heath). Small-scale and large-scale project activities were carried out in cooperation with schools from the project region. Children and young people became acquainted with contents and methods during several workshops and worked on sustainable development in their region. International disseminators were also able to take part in workshops on sustainability and ESD within the context of this project, making valuable contributions to the discussion.

*Education for Sustainable Development is based on contents and methods.*



## Project goals



More than 200 pupils from the region "Hohe Heide" (Lüneburg Heath) worked thoroughly on sustainable development in their region. The goal was to acquaint pupils with the special features of this natural space as well as its economic and social aspects.

The children and young people involved in the project chose a particular topic together with their teacher and worked in the classroom on its basic aspects, focusing on sustainability. Each topic, be it energy, tourism or consumerism, was dealt with from this perspective.

The next step consisted of examining the current situation at the local level. To this end, various methods were used, including excursions, interviews with citizens and contacts to decision-makers.

All experiences created or strengthened the pupils' relationships with their local environment and offered insight into new aspects. The pupils acquired knowledge about their region, knowledge that forms the necessary basis on which to build ideas about the future: What are the resources; what are the limits of sustainable development at local level?

The necessary skills were conveyed by the NNA and by the teachers. Contents and methods were explored in workshops in and outside of the school, through visits to other classes and through regular exchange with the teachers involved, which contributed to

enhancing existing relationships between local decision-makers.

The project findings were arranged as an exhibition throughout the whole region, with the aim of communicating wishes and visions to local politicians. The second step entails disseminating the findings among European partner towns through school exchanges and giving fresh impetus to the debate surrounding sustainable development through a comparative approach at local level.

Exchange with other cultures on the topic of ESD was encouraged by an international disseminators' workshop with experts on environmental education.

The project also aimed at developing learning materials to be used in the schools of the region "Hohe Heide".

*The project should stimulate pupils to work on sustainable development in their region and should provide them with key skills enabling them to shape the future.*

*European integration should be strengthened through informal, inter-regional exchanges.*

*The project should include the verification of methods on how to deal with sustainable development, the development of learning and teaching materials aimed at schools and other educational institutions and the discussion of ESD standards.*





## *Kooperative Gesamtschule Schneverdingen - KGS*

The school currently has approximately 1,600 pupils and a staff of about 100 teachers. The pupils who attend the KGS live in Schneverdingen and in its surrounding ten villages.

The KGS includes the three distinctive school types Hauptschule, Realschule and Gymnasium that run separately, but remain in close cooperation with each other. This system enables pupils with different learning background to share learning experiences. This happens above all through the school's comprehensive teaching method and shared daily school life.

The KGS has committed itself to various activities: the school participated in the "programme 21" launched by the Bund-Länder-Kommission (Joint Commission of the German federal states and of the German Federation); the pupils have been particularly involved in the creation of a good school climate with the help of conflict-solving and mediation programmes, and have thus developed essential social skills. In March 2007, the school was awarded the title "School without Racism -

School with Courage".

The pupils' enterprise covers a range of fields and offers possibilities for developing projects further with external experts (participation is compulsory for Year 9).

The KGS is the major project partner. Past fruitful cooperation between the NNA and the KGS paved the way for this successful teamwork. Both sides remain keen on developing further common projects that will be carried out within the context of the all-day school programme. Currently, years 5-7 make use of the all-day-school programme, which is extended every year to a further year level.

### ■ **KGS Schneverdingen**

Am Timmerahde 28-30  
29640 Schneverdingen  
[www.kgs-schneverdingen.de](http://www.kgs-schneverdingen.de)



## *Haupt- und Realschule Bad Fallingbostal - HRS*

Since being recognised as an "Eco-school" in 1999, the HRS has received several awards. It organizes an annual competition or similar activity linked with environmental issues. It also offers cross-level and cross-school project days (years 6 and 8), all-day school activities for years 5 and 6, as well as violence prevention through courses training pupils to be conflict mediators, and buddy projects.

"Nature Experience in the Forest", ("Waldjugendspiele") was arranged for Year 9, taking place for the 20th time in 2006. The project

team was involved in the planning and running of the event, and introduced principles of sustainability, nature experience using the five senses, and "cooperation rather than competition".

### ■ **Haupt- und Realschule Bad Fallingbostal**

Idinger Heide 2  
29683 Bad Fallingbostal  
[www.hrsbf.de](http://www.hrsbf.de)



# Project Partners

## *Georg-Eckert-Institut für Internationale Schulbuchforschung, Braunschweig (GEI)*

The GEI carries out research on teaching materials in the fields of history, geography and social studies and is involved in numerous projects in cooperation with international partners.

The cooperation with the GEI has greatly reinforced the international character of the project "My region in the 21st century". The disseminator workshops sponsored by the GEI which took place with the participation of environmental educators from Russia and China and also international teacher trainers offered a worthwhile forum for fruitful exchange on ESD.

### ■ Georg-Eckert-Institut für Internationale

Schulbuchforschung  
Celler Straße 3  
38114 Braunschweig  
[www.gei.de](http://www.gei.de)

## *The Alfred Toepfer Academy for Nature Conservation, Schneverdingen (NNA)*

The Alfred Toepfer Academy for Nature Conservation (NNA), Schneverdingen, was founded on April 1, 1981. It is a state institution under the administration of the Environment Ministry of Lower Saxony. Its main office is located on the grounds of the old heath farmstead of Möhr, and its conference centre is in Camp Reinsehen. Since January 1995, the NNA has been responsible for the organisation of the Voluntary Ecological Year in Lower Saxony, with a special NNA department in Hildesheim, where special workshops are held and guidance is given to the volunteers.

The Academy's main concerns have always been education, research and public relations within the wide field of nature conservation. The essential intention of the Academy for Nature Conservation is to act as a mediator between academia, administration, the economy and the public sphere. It represents a forum for an open-minded exchange of ideas and experiences, for information about nature conservation and environmental protection, for moderating conflicting interests in this field, gaining new knowledge and establishing relationships with persons or institutions actively involved in nature conservation.

The Academy for Nature Conservation develops within the frame of its projects new concepts of Education for Sustainable Development that aim at fostering key skills such as problem-solving, cooperation and participation, and above all the ability to participate actively in processes.

### ■ Alfred Toepfer Akademie für Naturschutz (NNA)

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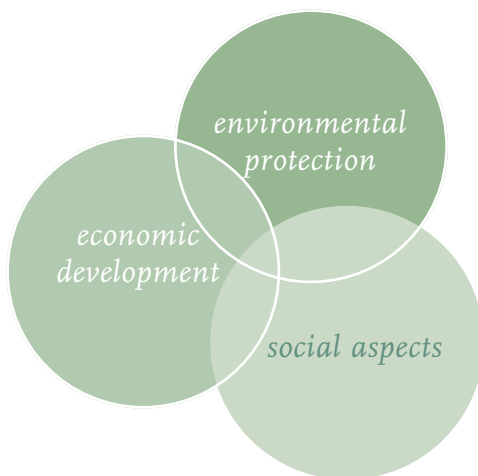




# From Sustainability to Education for Sustainable Development (ESD)

## Sustainability

*„Take from a forest only so much wood as can grow again, to avoid clear-cutting and to ensure that the forest can regenerate“.*  
*As far back as 1713, Hans Carl von Carlowitz coined with this sentence the concept of sustainability in the field of forest management.“*



The current concept of sustainability takes account of social aspects, economic development and environmental protection as closely related to each other.

### *Sustainable Development*

The concept of “Sustainable Development” was coined for the first time in the 1987 report of the Brundtland Commission with the following definitions:

① "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

and

② "Sustainable development is a process of change in which the exploitation of our resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations."

At the Earth Summit in Rio de Janeiro in 1992, the 192 member states of the United Nations proclaimed "Sustainable Development" as a central objective for the 21st century. In the meantime, numerous cities and municipalities have begun local Agenda 21 processes under the motto "Think global - Act local".

In spite of all achievements of the Agenda 21 processes, there is still a gap between knowledge about environmental issues and active commitment. Knowing about environmental problems does not necessarily mean that politicians, industrialists, individuals actively demonstrate this awareness and strive to solve them.

1987  
*Brundtland  
Commission*

1713  
*Hans Carl  
von Carlowitz*

1992 *Rio de Janeiro*



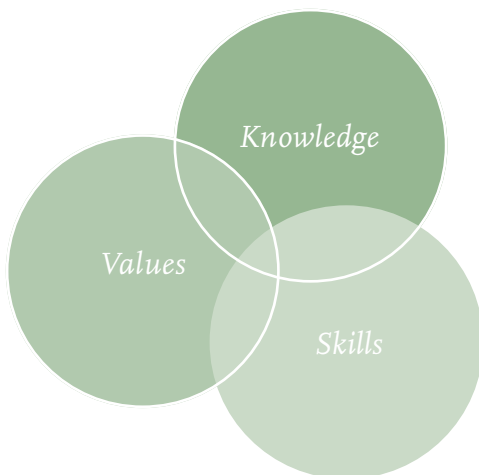
2002 Johannesburg

### *Education for Sustainable Development (ESD)*

At the Earth Summit of the United Nations which took place in Johannesburg in 2002, the central issue was how the goals set for sustainable development can be reached.

How should people be educated to develop sustainable behaviour?

The General Assembly of the United Nations therefore declared the years 2005 to 2014 as the Decade of Education for Sustainable Development. During this decade, each member state of the United Nations has the task to disseminate the idea of sustainable development, including efficient methods of implementation. In Germany, the German Commission for UNESCO is responsible for the implementation of ESD. Its main task is to collect examples from practice and to weave people into a network for implementing ESD. Education for Sustainable Development will be broadly disseminated in the public sphere during the UN Decade.



### *ESD – From Theory to Practice*

192 states proclaimed Education for Sustainable Development as a central objective. Generally, curricula have not yet taken this objective into consideration. ESD should be linked with current ways of life in our society. In this context, cross-sectional topics like climate change, water use or energy issues are relevant, as well as the question of intergenerational and intragenerational equity. Thus, this broad political and pedagogical concept of education does not primarily aim at conveying relevant complex thematic areas only at cognitive level. The aim of ESD is to provide individuals with skills that enable them to actively participate in shaping the future. In this context, both emotional and action-based components of education play a decisive role.

The contents of ESD can be illustrated in the same way as sustainable development. This is mostly a question of the interplay of values, knowledge and skills.

# From Sustainability to Education for Sustainable Development (ESD)

## Values

The program of the UN Decade 2005-2014 includes the following fields of activities:

- Overcoming poverty
- Equality between men and women
- Basic health care for all people
- Environmental protection
- Rural development
- Human rights
- Intercultural understanding and peace
- Sustainable production and sustainable consumption
- Cultural and linguistic diversity
- Campaigns against illiteracy; information and communication technologies

ESD thus also includes the transmission of basic values such as tolerance, empathy, justice and democratic understanding.

## Knowledge

Acquisition of knowledge is the most important basic factor. We cannot expect to initiate changes without diverse knowledge about how our world works. Curricula and schools contribute to this task. ESD means imparting specialist knowledge from a variety of perspectives rather than isolated out of its context. An ideal approach towards achieving this is to take the pupils' own lives as a starting point.

## Skills

The programme "21" launched by the Joint Commission of the German federal states and of the German Federation is based on the concept of active involvement in the shaping of future developments ("Gestaltungskompetenz"). To this end, the following skills should be conveyed and trained at school\*:

To acquire knowledge while opening up to the world and integrating new perspectives

- To think and act in a foresighted manner
- To gain interdisciplinary knowledge and to act correspondingly
- To be able to plan and to act in cooperation with others
- To be able to participate in processes leading to decisions
- To be able to motivate others to become active
- To be able to reflect on one's own and others' goals
- To be able to plan and to act in a self-responsible manner
- To be able to show empathy and solidarity with the discriminated, the underprivileged and the oppressed
- To be able to motivate oneself to become active

\* See BLK-Programme Transfer-21



## *From Environmental Education to Education for Sustainable Development (ESD)*

*From toad migration control to cinema workshops*

During the last decades, Environmental Education has been dealt with in schools only in biology and geography classes. ESD offers many more possibilities for being integrated into almost all school subjects, due to its much wider approach (global learning, social equity, etc.).

Ecological issues are not dealt with separately, but are linked with each other and given equal weight. The concept of sustainable development lays the emphasis on close relationships between the way of life, environmental quality and a fair distribution of resources. Topics like the north-south conflict and fair trade have already been dealt with for a long time in schools, but ESD now also includes the ecological dimension alongside the social and economic perspectives.

Guides offering tours through the tidal mudflats of the Wadden Sea can extend their presentation of organisms and of the ecosystem to aspects of climate change and globalization (migration or introduction of foreign species). As consumers, we could eat biological chocolate and drink biological coffee, delicious examples of a successful fusion of the three dimensions.

ESD is not a new science and the issues it addresses are not entirely new; its primary focus is to encourage new perspectives and widen horizons. Of course, excursions to natural surroundings should still be enjoyed as in the past, but these should also include information extending beyond specialist knowledge.



### *Working as External Staff in Schools*

Externals going into schools are often critically questioned by pupils. Young people have a clear view of what being a teacher means, but they will probably ask questions whenever two persons from the Academy for Nature Conservation come to their school and offer a cinema workshop (see section about practice).

However, with the help of a wide range of different examples, pupils can easily acquire the skills necessary to shape their own environment.

## November 2005

- Workshop with international participants: Standards for ESD in cooperation with the Georg Eckert Institute (GEI)

## March 2006

- Activities with the Kooperative Gesamtschule Schneverdingen (KGS) begin

## Mai 2006

- Workshop for disseminators: “Education for Sustainable Development - A Debate with Chinese Experts in Environmental Education” (in cooperation with GEI)
- Workshop “Sustainability at School”, teachers from the KGS and from its partner schools abroad
- Exhibition in the town hall: “You and Me - So Near and Yet So Far”, (KGS and NNA)

## September 2006

- Workshop: “Education for Sustainable Development - A debate with Russian experts in environmental education“ (in cooperation with GEI)
- Nature Experience in the Forest (“Waldjugendspiele”) in cooperation with the Haupt- und Realschule Bad Fallingbostel (secondary school, Year 9)
- Workshop: “Education for Sustainable Development - An Intercultural Dialogue” (in cooperation with GEI)

## October 2006

- KGS School Exchange, Workshop: “New Cinema” (Year 9)

## November 2006

- Prizes awarded to the winner(s) of the project “My Region in the 21st Century” as a UNESCO Decade Project (ESD) in Bonn

## December 2006

- Opening ceremony of the exhibition: “Gaining Orientation – Shaping the Future” by NNA and KGS in the town hall of Schneverdingen

## January 2007

- Pß Project: “Time-Time-Time”, Haupt- und Realschule Bad Fallingbostel
- Workshop “Sustainability Strategies”, KGS and NNA

## March 2007

- Workshop: International Debate on ESD Standards with Teacher Trainers (in co-operation with GEI)

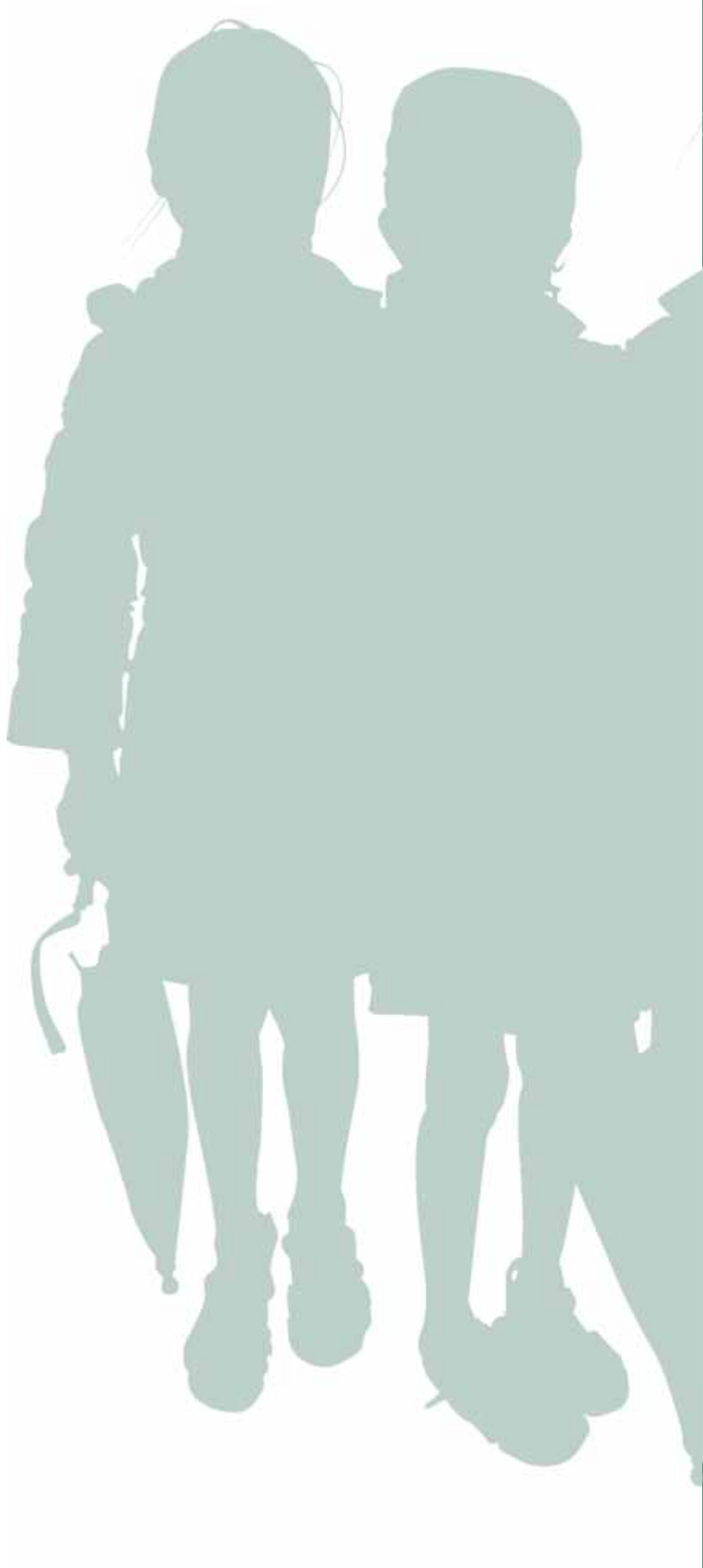
## April 2007

- Presentation of the project results from January 2007 in the town hall

## May 2007

- Final completion of the learning materials (“Learning Packages”)
- Conclusion of the project









*Education for Sustainable  
Development in Practice*



## *Education for Sustainable Development in Practice*

All school activities are determined by the resources available, such as time and supervision capacities. The experience gained over the course of the project shows topics and methods related to sustainability can be integrated into school teaching under many different circumstances.

The individual scope of action can be defined with the help of the following six questions::

<b>Where?</b>	<i>inside</i>	<i>outside</i>
<b>Duration?</b>	<i>short</i>	<i>long</i>
<b>Form?</b>	<i>Individual action</i>	<i>continuous works</i>
<b>Content?</b>	<i>old and established</i>	<i>new</i>
<b>Effort?</b>	<i>without preparation</i>	<i>time-consuming</i>
<b>Supervision?</b>	<i>without preparation</i>	<i>team work (with externals)</i>

# Putting it into Practice: Introduction

However these questions are answered, there are many possibilities to integrate ESD into school teaching.

All games, methods and processes described here have been tested during activities with partner schools for their practical suitability; they are intended to provide concrete suggestions for developing similar projects.

The amount of time available is an important aspect for school work and thus one of the determining factors for contents and methods. The following pages are therefore structured according to time requirement.

*These symbols stand for*





hours **3**

## *Experiencing a Complex Issue through a Role Play*

Of course, the complex field of Sustainable Development cannot be dealt with in one morning, yet games make it possible to impressively experience all dimensions of sustainability in three hours.

A group of scholars led by Dennis Meadows (Member of the Club of Rome and co-author of the book *Limits to Growth*) have developed a series of games based on scientific knowledge. The game *Fischfang* (fishing) is particularly suitable for an introduction to the topic of sustainability.

### *Games as “Door-Openers”*

The game is about the dilemma of the use of common goods, here in particular of the seas – but it also stands for clean air, pure water, fertile soils or fossil oil, resources we take as a matter of course and consume every day.

The game’s players are fishery managers who all want to make as much profit as possible. Every year, they have to decide how much fish to catch. They do not know the exact numbers of fish in the ocean, but they know that the fish stock regenerates every year according to a well-determined scheme.

*Fischfang* can be seen as a role-play, which makes (almost) everything possible. Processes that require some decades in real life can be experienced in quick motion. It is especially in the area of using natural resources that the consequences of our actions do not become apparent to us until much later, when we are no longer able to identify the causes and the effects. We all use these common goods, but we do not necessarily know their basic structures.

Where is the point of no return, when regeneration of the fish stock is unattainable? The players are also confronted with psychological aspects of the use of common goods: We do not have a monopoly on these; we have to share them with others. How do we react when we feel cheated by others?

\*see literature



## *Reflections on Fischfang*

To reflect on actions and events is an essential part of Education for Sustainable Development.

The example of Fischfang serves to demonstrate what questions pupils are able to tackle after the game with respect to values, knowledge and skills:

What special knowledge should I have to be successful in the long-term as a fisherman? What social skills do fishermen need in order to continue being successful in the future?

What values are helpful to support endeavours towards successful fishery?

\* see: The Systems Thinking Playbook





The following chart displays the different levels that reflect the experiences gained from the game. The various points are examples that may be completed or extended as you wish.

	Values	Knowledge	Skills
<i>Economy</i>	<ul style="list-style-type: none"> <li>Long-term preservation of profitable resources</li> </ul>	<ul style="list-style-type: none"> <li>Effects of competition on economic decisions (school subject: economics)</li> <li>Fisheries (geography)</li> </ul>	<ul style="list-style-type: none"> <li>Participation in decision-making processes</li> <li>Promotion of interdisciplinary thinking</li> <li>Assuming responsibilities</li> </ul>
<i>Environment</i>	<ul style="list-style-type: none"> <li>A species must not be endangered with extinction</li> </ul>	<ul style="list-style-type: none"> <li>Regeneration of fish populations (school subjects: biology, mathematics)</li> </ul>	<ul style="list-style-type: none"> <li>Foresighted thoughts and actions</li> </ul>
<i>Social Matters</i>	<ul style="list-style-type: none"> <li>Fair sharing of existing resources</li> </ul>	<ul style="list-style-type: none"> <li>Cooperation leads in the long term to success</li> </ul>	<ul style="list-style-type: none"> <li>Recognizing skills within a group and being able to make use of them for a common task</li> <li>Sharing the decision-making process with other persons concerned: cooperation</li> </ul>



**tip:** Fischfang requires preparatory work, such as posters for graphics showing the number of fish caught. A second person is needed for carrying out the game with the pupils. Professional moderators can also fulfil this task.



\* see: Booth Sweeney, L.; Meadows D. (2001): The Systems Thinking Playbook, Vol. III. New Hampshire: The Institute for Policy and Social Science Research







hours

3

learning  
objective



*Appealing to  
different skills*

## *Stations of Discovery: Experiencing Nature in the Forest*

Nature experience is organised for pupils of Year 9 as a route through a forest area near to the school. Pupils walk in small groups (5-6) through 20 different stations during one morning. These activities have been set up in cooperation with external persons (police officers, forest wardens, refuse disposal service, parents). In cooperation with the teachers involved in the preparation of the 19th year of nature experience in the forest, we planned to introduce topics related to aspects of sustainability/ESD.

A further purpose was to provide each pupil with at least one experience of success. Thus, the new tasks we prepared for this event (5 out of 20) were to appeal to individual skills such as imagination, strength, powers of reasoning, dexterity, previous knowledge, logical thinking, physical fitness. Within each group, single pupils were given responsibilities before the start, such as managing time, encouraging the participation of all pupils, and being the group's representative.



# Experiencing Nature in the Forest

## *New Stations, Intended Objectives and Experiences*

- ① **Keeping one's balance on a tree trunk:** Two groups pass each other on a lying tree trunk without touching the ground.  
Experience, learning objectives: Being part of a team, developing a sense of balance and fairness, cooperation leads to success, what counts is the group, not the individual, result.
- ② **Determining the speed of running water:** Pupils measure the river's speed by setting up their own experiment.  
Experience, learning objectives: common task, combining creativity and mathematics
- ③ **Getting to know a tree:** A pupil guides a blindfolded peer to a tree to be felt with fingers and recognized afterwards without blindfold.  
Experience, learning objectives: Training attentiveness, experiencing responsibility and trust (guide and being guided with a blindfold on).
- ④ **Fischfang:** Role play on sustainable use of fish stock (see p. 16)  
Experience, learning objectives: Cooperation, conflict solving, what counts is the shared result, finding a consensus, knowledge about non-renewable resources, acting with foresight, consequences of actions, sense of responsibility.
- ⑤ **Wood chimes:** Pupils choose a piece of wood from a selection and add it to an existing structure of wooden pieces in such a way that a good sound is produced.  
Experience, learning objectives: Being part of a team, testing and making a common decision, aesthetics, resonance, the different properties of wood, which influence the sound it produces.
- ⑥ **How plants protect themselves:** A pupil is blindfolded and has both feet tied together in order to put himself/herself in the place of a plant. Which strategies does a plant develop to protect itself against voracious enemies?  
Experience, learning objectives: Role play, imagination, empathy, mutual acknowledgment, interpretation of nature, common bringing together of elements of knowledge based on a concrete issue.







### *Making up new games! What does it consist of?*

**Contents:** What do we want to convey? Which topics or activities does the environment (climbing, etc.) stimulate? Which previous knowledge is to be used to work with this group?

**Implementation:** How can we present a question or task in an unusual way? What are the different resources leading to experiences of success? A group of pupils that showed poor powers of concentration and a poor sense of belonging together at the station "Getting to know a tree" developed imaginative skills at the station "How plants protect themselves".

**Evaluation of skills:** Pupils may also be awarded points (if at all always necessary to give marks) for successful cooperation and good time management, and not only for "correct answers".

*modifying well-known games or making up new ones*

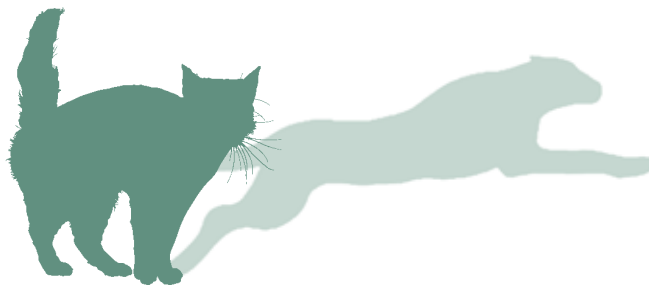


*experience*



*Stations of Discovery: Experiencing Nature in the Forest*





3  
days

3 days – One topic,  
many single  
activities

## Project Weeks

Project weeks are ideal for working with pupils within a specified time-frame on a topic related to sustainability. They introduce some variety into school routine, there is no marking to be done, and out-of-school contacts are easy to organise.

With regard to sustainable development, it is important to develop a sense of time because many environmental changes occur as slow processes that we hardly perceive, such as an increase in traffic. Adults can subjectively measure such factors by comparing the present situation with that of their childhoods, when it had been possible to play football in the street, for example. But how can pupils, who only have a short life history of their own, be given a feeling of changes and an awareness of time sequences? One possibility lies in training the pupils' powers of observation, sensitising them to changes in their environment, and in the development of planning skills and good time management.

In January 2007, the Haupt- und Realschule Bad Fallingbostel carried out a project week entitled "**TIME-TIME-TIME**" with its Year 6. This project included many smaller activities to enable pupils of this age to gain experience and knowledge about the topic. Guidance can be provided by one person and all games and activities can be carried out with minimal expenses.

experience 

### Timeline Game

This method is well suited for a playful approach to time dimensions. Pupils have to put 25 momentous events and inventions, from the extinction of dinosaurs through the first humans to the invention of jelly bears, into chronological order. The aim is to be able to order world history processes and events up to the present time.



# Measuring and Feeling – A Sense of Time

## *A Tasty Experience of Sustainability: Home-Made Yeast Rolls with Herb Cheese*

Preparing a meal together is a fulfilling approach to ESD.

While cooking, pupils can train several activity-orientated tasks requiring active involvement in the shaping of future developments (“Gestaltungskompetenz”)\*, such as

■ **Autonomous planning and acting:** The pupils know the recipe, but how can the meal be prepared for the whole class? The pupils think about how to proceed successfully, and are thus responsible for the progress of the work.

■ **Sharing decision-making processes:** According to which criteria should ingredients be selected (organic food, regional production, costs)?

■ **Planning and acting together with others:** The work sequences must be equally shared among the working groups, taking into account previous cooking skills.

■ **Thinking and acting in a cautious and foresighted way:** It is important to ensure good coordination of all working groups if all pupils want to have a common meal at a fixed time. The pupils must ensure that such different components as yeast dough and curd cheese are ready to be eaten at the same time.

## *Small Games with Powerful Effect*

■ The pupils are set three different tasks to be carried out one after the other. The same length of time is allotted to all tasks, but the pupils do not know about the exact duration. They have to solve an arithmetical problem, to have a talk with a friend and to listen to music: When does time fly and why?

■ **Different activities and different duration:** The pupils have to estimate how much time they spent carrying out a certain activity: hopping, waving, walking backwards, writing their own name or pulling faces.

■ The pupils test how long they can stand “doing nothing”.

Time perception is a very individual process. The pupils gain quite different experiences by carrying out the activities mentioned above. They should be able to express and to explain what they perceive. The aim is to recognize that two persons may experience the same activity in a totally different way.

\* see: Materials Transfer-21





## School Exchange

### New Cinema

#### *A cinema for our school*

Project weeks offer good opportunities to introduce new topics into schools. Such weeks provide extra time in which external persons can propose special activities such as workshops and excursions.

The international school exchange took place at the KGS Schneverdingen during a project week, with the participation of 42 pupils and 4 teachers from partner schools in Sweden, Hungary and Poland. The pupils could choose between 5 different workshop topics. The workshop language was English.

#### *Topics and Learning Objectives*

As the young people of Schneverdingen had repeatedly expressed the wish for more leisure activities in the town, we decided to make the creation of a school cinema the workshop objective.

The topic "cinema" served as an opportunity to stimulate the young people. The pupils committed themselves to this aim with all their creativity by seeking information and planning. They gained experience in the fields of self-organisation, project management and teamwork.

The real task for the youngsters was to gather the information necessary to create a cinema in their school within the first three workshop mornings.

They formed small groups which presented their results during a plenary meeting at the end of each day.

#### *Small Groups' Working Topics*

##### 1 Legal framework:

Rules and regulations on licenses, profits, possible earnings for pupils

##### 2 Organisation:

Required facilities and availability, selection of place, agreement of the school leadership, planning the required human resources.

##### 3 Financial planning:

Costs, entrance fees, possible sale of drinks and snacks

##### 4 PR:

Design of a logo and a poster

##### 5 Guidebook:

Compilation of all relevant information

##### 6 Questionnaire:

Production of a questionnaire for all fellow pupils with questions about possible participation and the use and selection of movies.

#### *Results*

The pupils made investigations via the internet or by telephone to collect necessary information on film licenses and terms of contracts, costs, etc. They produced advertising materials as well as a guidebook; they settled questions concerning facilities and equipment and asked permission from the school leadership.

learning  
objective



Why a cinema?

- Self-organisation
- Planning skills
- Project management
- Information skills
- Train teamwork
- Develop imagination

# A Cinema for our School

The groups presented their results on the fourth day of the workshop to an audience of about 90 pupils and teachers from four different countries.

Die Präsentation der Ergebnisse fand am vierten Tag des Workshops vor ca. 90 Schülerinnen und Lehrkräften aus vier verschiedenen Ländern statt.

## *Experiences*

The pupils' exploration of their school as place of living was a positive side-effect of the workshop: What do we need, what do we have at our disposal, what are we allowed to use, who should we contact for our purpose?

Existing language barriers were removed through mutual support in the plenary session and during the activities developed by the whole group, so that differences in English language skills could be compensated for. Nevertheless, it was still quite difficult to mix different nationalities within the small groups. The group as a whole became more motivated when pupils received the first important pieces of information and they all had the feeling that the project was "feasible".

## *Methods:*

Collect on posters ideas to be then selected. Work in small groups and regular plenary sessions; creative work for the production of advertising materials (handicraft work and PC).

**Equipment and materials:** PC/Internet, multimedia projector, telephone, support materials and handicraft work.

**Support by the project team:** Preliminary investigations, monitoring, making information available, upon request support to obtain information by phone.

**Possibilities of continuation:** A teacher suggested making the cinema teamwork a new field of activity for pupils besides the existing ones, to further benefit from results. This meets the needs of the workshop participants, who clearly expressed their wishes to be supported and even supervised by adults.

👑👑👑 Hint: It is particularly important for external persons to gather detailed information on the general frame of a project and on how the group is composed beforehand.



2 days –  
New Cinema

*What is important is the possible continuation of the work achieved during a project week*



days

3

## Another Way of Learning – Pupils Become Experts

Learning to be actively involved in the shaping of future developments is the main goal of ESD (cf. materials Transfer-21). Traditional school structures often provide too little space for this. In this context, learning packages were developed during the project to link the acquisition of knowledge with that of using it to actively shape the future. Learning materials on the topics of involvement in decision processes, mobile phones, living together and energy, for example, were designed according to one and the same structure.



### *Why a Syringe in a Learning Package Dealing with Mobile Phones?*

A mixed collection of items symbolises thematic aspects – the aim is to arouse curiosity through confusion.

3-4 lessons are necessary to deal with one learning package. As an introduction to the topic selected, pupils spontaneously answer some questions. They then work at home on more complex issues and present their results during the next lesson. This approach generates a multifaceted approach to the topic. The pupils discuss the contents in order to form an opinion, but the aim is also to exchange experiences gained during the investigation work.

For each topic, a suggestion is submitted for a common final or follow-up activity to be carried out by the class.



**tip:** A suitcase is available for lending in order to make the presentation of the learning packages more interesting. This and the work materials can be downloaded at [www.nna.de](http://www.nna.de)

## *Filling the Learning Package with Knowledge*

Unlike traditional materials, the learning packages contain only a few pieces of information, but many questions. Pupils have to find answers and by doing this, to fill the empty learning package with knowledge.

## *Open-ended Activities*

Each class develops its own way to work on the topic. The results diverge, depending on the pupils' age, previous knowledge and interests, on the time schedule and teaching contexts.

## *Strengthening the Ability to Shape the Future – beyond the classroom*

The pupils' life sphere goes far beyond school life. This is the reason why the answers to many questions are to be found out of school. Research techniques and provision of information are trained. While searching for answers, children and youngsters get to know societal structures.



## *Promoting Cooperation, Searching for and Offering Support*

Teamwork is often the only way to obtain valuable answers. Difficult tasks require cooperative activities that should be trained and fostered with the help of the learning packages. Each pupil remains responsible for the answer to his/her own question, but any support given by fellow pupils or other persons is particularly welcome.



3  
days

### *Work Stages and Time Schedule*

At least three lessons are necessary to carry out the work, with an interval of several days between the first and the second stages, during which the pupils can answer the questions as homework.

	Introduction	Work	Presentation of answers	Reflection	Common activity (optional)
<i>Content</i>	<ul style="list-style-type: none"> <li>■ Personal link</li> <li>■ Group building</li> <li>■ Presentation of tasks</li> </ul>	<ul style="list-style-type: none"> <li>■ Out-of-school autonomous research work</li> </ul>	<ul style="list-style-type: none"> <li>■ Presentation of results by the respective groups</li> </ul>	<ul style="list-style-type: none"> <li>■ Opinion-forming based on the knowledge gathered</li> </ul>	<ul style="list-style-type: none"> <li>■ From knowledge to action</li> </ul>
<i>Time schedule</i>	At least one period or double period	At least three days before the next lesson	At least two single periods or a double period		Individual time planning

### *Role of the Pupils and of the Teacher*

The work with the learning packages requires the pupils to switch roles. They gain knowledge about their own responsibilities, and actively search for information to work autonomously on the learning package topic. The teacher acts as a moderator and “keeper” of the method during this process.



## Energy

Energy is indispensable to all of us. We take it for granted that hot water flows out of the shower head, our TV set switches on, and our car or the bus carry us from one place to another. While using energy in many ways every day, we seldom think about where it comes from and how it was produced. What happens with it after use? Energy does not disappear; it only changes its form. Refuse dumps and climate change show us the effects of energy mismanagement. Renewable energies play an increasing role in power production. Besides their contribution to the reduction of CO<sub>2</sub> emissions, they also offer job prospects to young people.

The learning package is meant to enable pupils to follow public debates and to form their own opinions. An important aspect is also to examine and reflect on one's own ways of energy consumption.

*The following skills are to be conveyed to the pupils:*

- The ability to think and to act with foresight
- The acquisition of interdisciplinary knowledge and the ability to act
- Autonomous planning and acting.

- “Where does our home electricity come from?”
- “What could we do with the money saved from the energy economy measures?”
- “How can I contribute to the increase in electric power generation through renewable energies?”

**Class level:** from class 7

**Subjects:** Physics, Geography, Mathematics, Chemistry, (Technology)





days **3**

## Mobile Phones

The mobile phone as a consumer product is particularly suitable for dealing with topics related to environmental protection and consumer behaviours, as for many pupils it has become an essential article of everyday use. It is thus particularly representative of the many items we have, buy, use and throw away, without really knowing about the effects of a product's life cycle on many regions of the world.

*The following skills are trained:*

- The acquisition of interdisciplinary knowledge and the ability to act
- Empathy and solidarity with the discriminated, the underprivileged and the oppressed
- The ability to motivate oneself and others to become active



“What is the missing link between a gorilla and a mobile phone?”



“Where is the next mobile telephony mast, and are there radiation hazards or not?”



“What happens with the many old mobile phones that are no longer in use?”

**Class level:** from Year 5

**Subjects:** Biology, Geography, Physics, Values and Norms, Religion

# *Learning Package Mobile Phones*





3  
Tage

## Young People Having their Say

How can children and young people participate in the development of their own environment? Are they aware of the influence they can or could have on their lives, their environment and perhaps even on society itself?

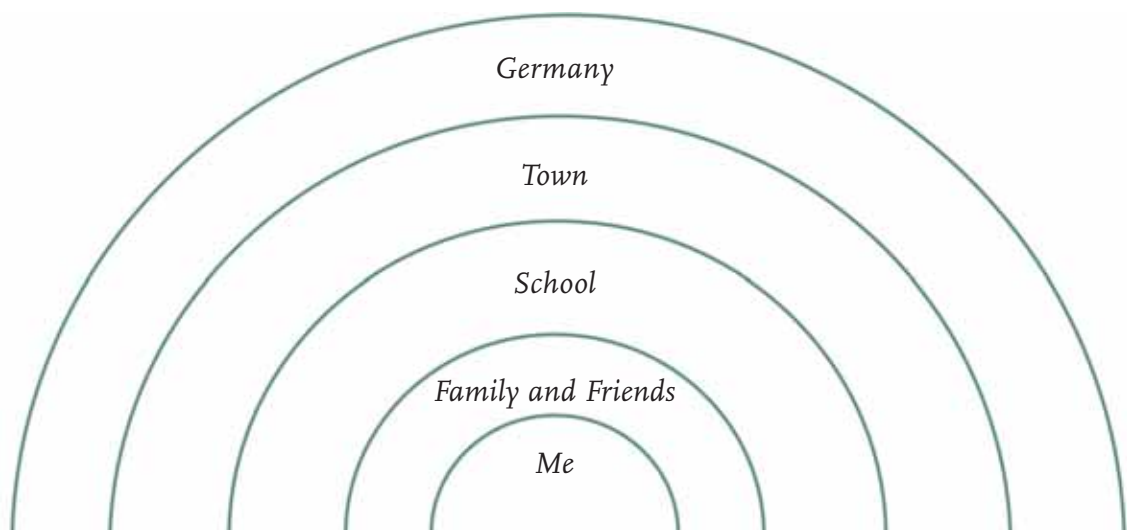
This learning package is meant to make the pupils familiar with co-determination possibilities in Germany, so that they become aware of how enjoyable it can be to engage in a responsible manner in the development of their environment and that small actions may have big effects.

Most people have the largest scope for action in their own social environment. An attempt is made here to cover the wide field of personal well-being, up to the question “how can I become involved at the political level?”

*The following skills are trained:*

- The ability to motivate oneself and others to become active
- The ability to participate in decision processes

### *Children's rights worldwide*



*Action Areas*

# Learning Package Young People Having their Say



- 🎤 “Question to member(s) of the Bundestag from the constituency in which you live: What kind of questions or wishes do young people have when they address you?”
- 🎤 “Find out all institutions established in your town or community that children and youngsters can turn to for help and advice when they have problems.”
- 🎤 “How can you, as a child or young person, use your power as a consumer to bring about an improvement of the rearing conditions of cows, pigs and poultry?”

**Class level:** from Year 7

**Subjects:** Politics, Social Studies, Values and Norms, Religion





Tag

3

## Living Together

The world around us is full of people we do not know, and who are different to ourselves. Our society is constantly changing and no one can predict the situations in which the children of today will live as adults. Will it be a society with many elderly people or a society of many different cultures, or perhaps even completely different? In view of this, the learning package “Living Together” is intended to encourage the pupils to make contact with different people and different ways of life from their local and regional areas.

*These are the components of the learning package:*

- -Acquiring knowledge based on an open attitude to the world and the willingness to integrate new perspectives
- The ability to reflect on one’s own approaches and ideas, and those of other people.

- 👉 Why does a Muslim woman wear a headscarf and a Catholic nun a veil?
- 👉 How many different nationalities are represented in your place of residence? What was the situation like 50 years ago? (question to be addressed to the city administration)
- 👉 Do you know a friend / a relative who suffers from a severe allergy, or from diabetes? What does this mean for her/his everyday life?

**Class level:** from Year 5  
**Subjects:** Values and Norms, Religion, Social Studies, Geography, German



# Learning Package Living Together







3  
days

## Pupils Work on Concrete Suggestions for the Development of their Region

*Sociometry:  
How many of you  
have lived in  
Schneverdingen,  
who has not?*

*Or:  
Who was born in  
Germany,  
and who was not?*

*The pupils divide  
themselves into  
groups according to  
their answers.*

*"Naff sheets":  
Pupils are asked to  
write on a blank  
poster their own  
critical statements  
about a certain  
topic.*

This workshop was intended to conclude the thematic work on the region's future carried out during the school year. The goal was to formulate sustainable, realistic demands on school and politics. Over the course of three mornings, pupils identified their region's shortcomings and developed relevant constructive suggestions in work groups supported by experts. The participants comprised 35 Year-7 pupils, one Year-10 pupil and 10 Year-13 pupils.

### 1st Day:

#### *Start, Methods for Forming Working Groups*

After a lively start with a sociometric approach\* to the group, "naff sheets" stimulated free criticism in the six following fields:

- Energy
- Living together
- Animal and environmental protection
- Consumption and farming
- Transport and trade
- Education

A sequence of tasks to stimulate the imagination followed. Pupils were asked to identify their needs and ideals via dialogues and "coffee talks" (inspired by the method of "World Café"). The first day was concluded by forming groups. The pupils divided themselves into groups by freely choosing from a selection of topics. The moderators tried to attain the greatest possible diversity within the work groups, but the Year-7 pupils did not want to be separated and regrouped. The moderators then sorted the results of the "coffee talks" into clusters (i.e. same or similar statements on a key word or expression were put together) and the major subject matters were formulated as a working basis for the second day.



## 2nd Day:

### Group Work

Each work group continued with its own topic using both criticism and imagination. The moderators supported the group process and supplied the pupils with suggestions on the topics. Special issues had to be clarified via the internet or specialist literature. We had also contacted German experts in these six thematic fields beforehand, who had given us permission to pass on their 'phone numbers to the work groups as a "telephone joker list" on Monday.

Several phases of games and of plenary sessions served to introduce some variety into the intensive group-work schedule. Furthermore, the rules of the game for group work were clearly defined and the moderators as well as the pupils attempted to respect them.



### Rules:

- Let others finish speaking
- Listen to others
- Do not digress from the topic

### Experiences

As we found out afterwards, the pupils did indeed make use of the "telephone joker".

Two girls from Year 7 succeeded, in spite of obstacles and frustrating experiences, in finding a management consultant who was able to provide them with the costing for the construction of a cinema (for example the costs per seat for a new construction), including market research criteria (catchment area, size of the city). The idea of constructing a new cinema for Schneverdingen proved to be "hardly feasible or unfeasible". It was, however, an achievement that these two girls managed to obtain firsthand information from an external person. The precise figures were much more convincing than a mere: "That would be far too expensive, no chance!"

This triggered a discussion about alternative possibilities of organising cinema activities or visits to the cinema, a school cinema, car-pooling with parents and a cinema bus.

### Information:

- List of experts
- Telephone joker
- Internet search



experience



## 3rd Day

### *and Last Day: Conclusion and Presentation*

After initial difficulties (linked with group building and motivation), most groups developed objective-orientated activities and worked with great commitment on forms of presentation. Representatives of the local press, the Director of the NNA and the First Councillor of the City of Schneverdingen were invited to attend the presentation, three relevant addressees for the pupils' requests:

- To the press: Creation of a special page or section for young people.
- To the City: Use of recycled paper in the City Council and creation of an advertising pillar for young people in the town centre.
- To the Director of the NNA: More information about events and close cooperation with the school.

The work groups presented their results on wall charts. They also performed a play, built a model cinema and gave several performances. A "human" chicken pecked at the ground, referring to factory farming. Representatives of the Bundesamt für Naturschutz (German Federal Office for the Protection of Nature) discussed relevant issues with the participants in a both cheerful and serious atmosphere.

### *What Can I Do?*

The activities of the last few days did not only serve to put demands on others – school, politics, etc.

The focus was also on one's own possible scope for action and self-commitment: What can I personally do? What can we achieve

together? What resources for action do we have, how can we contribute to solving or improving this issue?

The guests praised this combination of demand and self-commitment as "constructive criticism".

### *Selected Results*

- Area in the town centre where no cars are allowed.
- Free bike-renting service for tourists, with maintenance provided by a pupils' enterprise.
- Creation of a special section for and by youngsters in the newspaper *Böhme-Zeitung*.
- Creation of a neighbourhood program for mutual help.
- Workshops aimed at farmers on keeping animals in a near-nature environment (NNA).
- We should all buy more organic products.
- Optional course on farming offered by the all-day school

### *Difficulties and Experiences*

#### *What does "sustainable" mean?*

Although the concept of sustainability was first introduced to all participants (for many of them for the second time), the suggestions submitted by the different work groups had to pass through a "sustainability filter". To this end, the groups were given a checklist enabling them to re-examine their suggestions with the help of concrete questions.

The aim was the "sustainable development of the region". One of the issues that gave rise to

# A Forum for Young People

lively debates among the young people and stimulated them to find skilful arguments was that of a shopping centre for Schneverdingen, wanted by many people, but also criticized because a lot of shops in the town centre would suffer as a result.

## *Feedback from the Evaluation*

What the pupils found particularly exciting was that the workshop did not take place at school, but in the NNA. They therefore felt as though they were “not really at school”. The participation of representatives from the City, from NNA and from the press in the presentation also gave them fresh impetus.

## *Presentation of Results*

In April 2007, twelve pupils presented the workshop suggestions and demands aimed at the City of Schneverdingen to the Mayor, the First Councillor of the City and a city planning officer in the town hall. The topics were about communication/transportation, energy, life in our town and education. All contributions were fixed on an advertising pillar and handed over to the Mayor. This event formed the preliminary conclusion of the workshop activities carried out in January.



*"Sustainability filter" (excerpt):  
Does our idea help to save energy?*

*Does our idea contribute to more justice, be it in Schneverdingen or in Africa?*

*Does our idea have cultural value?*

## Integrating Sustainability into Lessons

So far, we have looked at activities and projects which can be carried out and completed relatively quickly. It is the aim of the UN Decade to anchor Education for Sustainable Development in all educational facilities.

*How can we achieve this? Is it possible to fulfil the curricula criteria whilst also incorporating Education for Sustainable Development?*

Seven teachers from the Cooperative Secondary School in Schneverdingen have taken on the challenge of this experiment. The following pages display in a brief format the various conditions and requirements for achieving this, such as the subject being taught, the age of the pupils and the criteria given by the curriculum. There is a wide range of such starting conditions, offering a wealth of ideas. The results of the work in class are summarised in the following chapter: “Exhibition – a Path to Publicity”.

### *Finding Topics*

How can Education for Sustainable Development be successfully incorporated into lessons?

How can we find a lesson topic together? Education for Sustainable Development touches upon personal values, on our own attitudes, and sometimes questions our behaviour in a particular way as a chosen topic comes closer to our own lives.

For this reason, it is important for the teachers’ credibility and the motivation that they share a personal interest in the chosen topic.

*What am I interested in?*





# My Region in the 21st Century

The following questions may be helpful in the selection process:

What am I interested in? What topic would I like and would I be able to commit myself to? Am I personally motivated in the case of a particular topic? Can I thus gain credibility? Can I be self-critical and honest if the pupils question my behaviour or confront me with any discrepancies they see between my own environmental knowledge and environmental actions?

There is also the question of the current curriculum. Is this topic suitable at the moment? What is in the curriculum and how should this topic be accommodated by it? How flexible can I be? Is it possible to locate connections between our desired topic and the curriculum?

The motivation of the class will be greatly determined by the level of interest in the topic. For this reason, one teacher posed the question, "What is my class or my course interested in? Are there any topics that regularly come up in discussion?"

*The following procedure is helpful when choosing a topic:*

- 1 The teacher makes a shortlist of four or five topics, in order to secure his or her own interest in the topic and its compatibility with the curriculum.
- 2 From this shortlist, the class or the course can choose what they would like to work on over the next few months. If further suggestions come from the class, these may also be considered, provided that they meet the criteria 1 and 2, thus qualifying for the shortlist.

*What does the teaching syllabus say?*

*What are my pupils interested in?*





## Personal Sheet: Wilfried Baalman, 48

*I teach biology  
and art.*

**ESD** is an important subject to be taught at school and I took part in this project because



sustainability is of crucial importance for the future of mankind. The young generation should therefore be enabled to recognise and to practise sustainable activities in various contexts.



months

### ▶▶ *My starting position for these project activities:*

Subject	Art (basic level)
Age of pupils / Year	Year 12
Number of pupils	36 (two groups)
School type	Gymnasium (secondary school)
Number of school hours per week	3 (incl. 1 double period)

### Overall time schedule for class work

From March to June 2006 with several breaks for receptive teaching sequences; during that time, the main practical activities were carried out within the frame of the project.

### Curricular guidelines

- Sculptures that address essential issues of the human condition (pupils had to work on selected works of art)
- Creation process of sculptures
- Well-founded statements about one's own sculptures
- Working with clay
- Two-dimensional and three-dimensional sketches and studies of human figure
- Creation of a small sculpture addressing a well-determined issue





## ▶▶ *Class work*

### **Main topic**

Figure sculptures addressing the issue of sustainability (the pupils could decide themselves which aspect of sustainability they would work on, according to their own interests)

### **I chose this topic with my pupils,**

because sustainability is a very important issue for almost all areas of life. The aim was to outline this fact by dealing with this issue in artistic form; this could be quite easily linked with the given curricular guidelines (see above)

### **The curricular guidelines**

relating to the acquisition of artistic skills in the field of sculpture were fulfilled through the implementation of the project ideas.

## ▶▶ *Evaluation*

### **Positive aspects**

The diversity of approaches and of subject areas in pupils' works; the cooperation with NNA and the interdisciplinary meetings with other colleagues involved in the project; the exhibition showing the results... and that this issue stimulated some of the pupils to a such extent that they are still working on it (also outside of school).

### **My tip for ESD at school**

Compulsory topics should be considered from the viewpoint of sustainability - there are nearly always possibilities to integrate sustainability into "what has to be taught"





## Personal Sheet: Dr. Hans Fack, 52

I teach religion  
and biology

**ESD** is an important subject to be taught at school and I took part in this project because



I have always been interested in this thematic field to which I think the young generation must be sensitised.

### ▶▶ My starting position for these project activities:

Subject	Religion
Age of pupils / Year	Year 5 (11-12 years old)
Number of pupils	31
School type	Gymnasium (secondary school)
Number of school hours per week	2 hours

#### Overall time schedule for class work

From March to June 2006 with several breaks for receptive teaching sequences; during that time, the main practical activities were carried out within the frame of the project.

#### Curricular guidelines

- How to handle creation/the future?

### ▶▶ Class work

#### Main topic

Vision of the future: Schneverdingen in 50 years

#### I chose this topic with my pupils,

because it offers possibilities for autonomous activities, open questioning and our own discussions.

#### The curricular guidelines

were fulfilled because basic aspects had already been dealt with (by the book of Genesis).

The pupils were able to project these issues onto their own environment.

### ▶▶ Evaluation

#### Positive aspects

We all enjoyed this topic. It was very helpful to receive support and ideas from outside (NNA)!

#### My tip for ESD at school

Interdisciplinary approach to the topic (also throughout all class levels)



months





## Personal Sheet: Jens Tönneßen, 48



*I teach mathematics, biology, chemistry and physics*

**ESD** is an important subject to be taught at school and I took part in this project because



it is becoming increasingly crucial for the survival of our use-and-throw-away society to use natural resources in a responsible way. Pupils will probably experience the end of fossil fuels during their lifetimes.

### ▶▶ *My starting position for these project activities:*

Subject	Chemistry
Age of pupils / Year	Year 9/10
Number of pupils	24
Schooltype	Realschule (intermediate secondary school from class 5 or 7 to 10)
Number of school hours per week	2 hours

### Overall time schedule for class work

From May to October 2006 in quite regular intervals

### Curricular guidelines

- Organic chemistry: fossil fuels

### ▶▶ *Class work*

#### Main topic

Potentials and limits of alternative power production in North-German heathland

#### I chose this topic with my pupils,

because it was the only possibility to integrate the topic of sustainable development into the chemistry courses of class level 9/10.

#### The curricular guidelines

(marginally) include environmental issues related to "fossil fuels".

### ▶▶ *Evaluation*

#### Positive aspects

The combination of search for information, evaluation and implementation through creative, craft methods towards a statement.

#### My tip for ESD at school

The curricula should contain clearer guidelines about the topic of sustainability, in order that pupils recognise the seriousness of the situation and that they don't treat this as a leisure activity (as they tend to treat project weeks).

3 months





## Personal Sheet: Konstanze Kaufmann, 48

I teach (taught)  
textile design, art and  
English (lower level of  
secondary school)

**ESD** is an important subject to be taught at school and I took part in this project because



es gibt nichts Gutes, außer man tut es" ["there is nothing good unless you do it": an expression coined by German writer Erich Kästner]. Future means to me becoming aware of complex contexts, to be able to act in a responsible way for the protection of our planet earth, of flora, fauna and human beings. From 2001 to 2006, I was involved as a coordinator in the program "21" initiated by the Bund-Länder-Kommission [a special commission jointly built by the German federal Government and the German federal States].

### ▶▶ My starting position for these project activities:

Subject	Textile design (compulsory optional subject taught in several school types)
Age of pupils / Year	Class level 8 (about 14 years old)
Number of pupils	17 (14 girls and 3 boys)
School type	Realschule and Gymnasium (Intermediate Secondary School and Grammar School /High School)
Number of school hours per week	2nd semester 2005/2006, one double period per week
Overall time schedule for class work	see above

### Curricular guidelines

- Support working on topics related to sustainability in textile design courses through resolutions passed in special teacher conferences. This concerns for example projects on fair soccer, on the textile chain (from raw material over produced textiles to the recycled product), on basic aspects of textile production and international exchange projects (Poland, Sweden, Hungary) devoted to topics related to forest, water and air.

### ▶▶ Class work

#### Main topic

The textile chain - from raw material to waste management and recycling.  
From the sheep through the woollen fleece to the disposal of wool

- From sheep to wool (as a raw material)
- Production - from woollen fleece to felt
- Utility and use of woollen textiles
- Waste management and recycling



**I chose this topic with my pupils,**  
because

- it has references to region and sustainability
- it allows pupil-oriented and theoretical working, provided that the materials and resources can quite easily be collected or are already available
- it promotes an understanding of regional culture
- it enables the pupils to master basic techniques (working with felt) and the adequate care of woollen cloths
- the pupils acquire skills by working on and evaluating information and implementing it in a creative way; they train ecological thinking and acting by taking account of complex contexts

#### **The curricular guidelines**

were fulfilled, in particular through

- the acquisition of skills and knowledge about typical woollen textiles
- the classification of wool hair
- getting to know the shepherd's job
- felt samples to surface and object
- covering an item of practical use with felt
- working with the concept of sustainability
- papers with own ideas, planning and design of an exhibit (cardboard)
- the promotion of objective-orientated planning and design skills
- ecological thinking by taking account of complex contexts and regional references

#### **►► Evaluation**

##### **Positive aspects**

The autonomous, action-orientated work in groups on topics selected by the pupils themselves, the creative results and the regional references. The pupils were in charge of an exhibit and partially produced functional objects (felt bags). They learnt from each other, but also from experts and got to know various methods.

##### **My tip for ESD at school**

To successfully carry out this project and follow-up activities, about one semester is necessary before starting. This time is necessary for planning, to establish contacts with experts, to arrange the financial and organisational framework and to set up one's own collection of materials.





## Personal Sheet: Antje Klingbeil, 53

I teach German  
and geography.

**ESD** is an important subject to be taught at school and I took part in this project because



sustainability is of crucial importance for the future of mankind. The young generation should therefore be enabled to recognise and to practise sustainable activities in various contexts.

### ▶▶ My starting position for these project activities:

<b>Subject</b>	Geography
<b>Age of pupils / Year</b>	Years 7 (12-13 years old) and 13 (18 years old)
<b>Number of pupils</b>	31 in class level 7, 5 in class level 13 (advanced level)
<b>School type</b>	Gymnasium (secondary school)
<b>Number of school hours per week</b>	Project week: 5 hours per day, otherwise about 1-2 hours per week
<b>Overall time schedule for class work</b>	From September to December 2005. During the initial phase, the topic was raised sporadically.

### Curricular guidelines

- Power industry, renewable energies, climate, climatic change, dealing with factual texts

### ▶▶ Class work

#### Main topic

Alternative forms of energy in Schneverdingen and its surroundings - Resources for the future?



### **I chose this topic with my pupils,**

because

the pupils had already shown a particular interest in this topic and they had good previous knowledge of it. They committed themselves spontaneously to many activities and were willing to collect and to evaluate detailed information. I also chose this topic, because Schneverdingen offers enough examples of alternative forms of energy.

### **The curricular guidelines**

were fulfilled by working with pupils on the basics of climatology. I raised the topic of climatic change that is, amongst other things, linked with our form of power industry.

### **►► Evaluation**

#### **Positive aspects**

The project activities carried out in groups offered many possibilities for pupils to autonomously shape teaching units. The pupils got to know methods such as how to hold an interview, to produce diagrams on the basis of data they had collected, and how to implement their ideas in a creative way (for example how to create games and models).

#### **My tip for ESD at school**

Further activities linked with this topic should run during each project week in close cooperation with the NNA. A working group devoted to theoretical and practical exercises on sustainability should be set up in several fields within the context of free afternoon activities.







# Personal Sheet: Thomas Sandkühler, 48

I teach biology and geography

**ESD** is an important subject to be taught at school and I took part in this project because



I have been cooperating for years with the NNA and have thus become acquainted with their activities

▶▶ *My starting position for these project activities:*

Subject	Geography
Age of pupils / Class level	Class level 9
Number of pupils	22
School type	Gymnasium (secondary school)
Number of school hours per week	2 hours; for a certain period (only a semester)
Overall time schedule for class work	From April to the end of May 2006; preparation of the exhibition 2 days in October 2006
Curricular guidelines	Europe and European Union

▶▶ *Class work*

**Main topic?**

See curriculum. It is not possible to deal with more topics, due to the short time schedule and the few teaching hours. The topic was introduced on the basis of the model of basic functions of human life (German model developed in the 1960s: Daseinsgrundfunktionen).

**I chose this topic with my pupils,**

because they formed the only possible group for adequately dealing with the topic.

**The curricular guidelines**

were completely fulfilled.

▶▶ *Evaluation*

**Positive aspects**

The pupils were able to work quite autonomously and rediscover the world. The matter was on their environment and living conditions, and not on "artificial school worlds".

**My tip for ESD at school:**

One should have more influence on educational authorities, which are increasingly laying emphasis on output (central guidelines and exams). Schools therefore do not have enough possibilities for their own activities. In subjects like geography that are not taught throughout the whole school year, a longer time



months





# Personal Sheet: Adolf Staack, 53



*I teach German, mathematics, biology, physics and religion*

**ESD** is an important subject to be taught at school and I took part in this project because



**I have been cooperating for years with the NNA and have thus become acquainted with their activities**

▶▶ *My starting position for these project activities:*

<b>Subject</b>	German, biology, physics, mathematics
<b>Age of pupils / Class level</b>	Year 7 (average age: 13 years old)
<b>Number of pupils</b>	33
<b>School type</b>	Realschule (intermediate secondary school from year 5 or 7 to 10)
<b>Number of school hours per week</b>	First sporadic, then weekly "reports" and finally the project week
<b>Overall time schedule for class work</b>	First semester 2006/2007
<b>Curricular guidelines</b>	Text comprehension and production, percentage calculation, cycles, investigations

▶▶ *Class work*

**Main topic?**

Planning for our region's future

**I chose this topic with my pupils,**

because

- the pupils wanted to work on this topic
- they have to act in a responsible manner at local level
- there are possibilities to conduct investigations "on one's doorstep" and
- contacts can easily be established

**The curricular guidelines**

were fulfilled in a small group working on mathematical issues (percentage calculation), otherwise by being orientated towards overall aims (see above).

▶▶ *Evaluation*

**Positive aspects**

The intensive cooperation of all pupils during the final phase and their pride in the remarkable results.

**My tip for ESD at school:**

For this reason, the topics of sustainability, taking responsibility for one's own actions and for the local and regional environment, the necessity of teamwork, and experiences of ways in which to exert an influence on decision-makers in order that





## The Metaphor Approach: *What has it got to do with me?*

At the beginning, a purely theoretical introduction is not recommended. Although older pupils can almost certainly grasp the three dimensions of sustainability, a more relaxed introduction based on a game is much more attractive. This kind of introduction gives children and young people the opportunity to build on their own experiences of themselves and the world, to which they can ultimately refer. Each personal experience that the pupils already possess presents a connection point for later, which makes learning more successful.

*“How do I introduce my class to the topic, and my topic to the class?”*



Once you have found the topic or the leading question, the “Metaphor Approach” provides a highly individual beginning to the topic. It works with metaphors referring to parts of the body, with both positive and negative connotations. The pupils ask, for example, “What would you put your heart and soul into?” or “What weighs on your mind?” The beginning is highly dynamic. Often, free space needs to be found first of all. Each team consists of two people; one person lies down on the paper and the other sketches the outline of his or her body. Then the cards displaying the body-metaphor questions are placed on the relevant body parts of the person’s outline. The subsequent thinking and answering phase transfers the situation from physical to intellectual activity. Finally, the life-size posters with the answers to the questions noted on the cards are presented to the whole group.



# Approach

This method is an attractive combination of physical and intellectual activity (movement and thinking/formulating), not only for younger pupils. Some of the sixth-grade pupils, however, had never heard some of the expressions used; they then asked about their meaning: “Is that good or bad?” At the end of the project work, the results from this introductory activity can be reconsidered and commented upon. Has any general or individual attitude changed in the course of the work on the topic?



*Incidentally:  
this introductory  
method also works  
well with adults!*



*“What would you  
put your heart and  
soul into?”*

\* see: “Neues Lernen”

## Into the Public Sphere

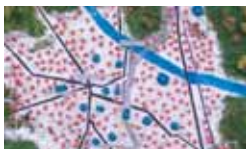
Anyone planning to embark on a long-term ESD project should aim to bring their work to a good conclusion. The goal of the Kooperative Gesamtschule in Schneverdingen (KGS) was to produce an exhibition which would present the results of its work in the classroom to the general public. The message to the pupils was clear from the beginning: Your work and your ideas are needed and interesting for your fellow citizens. At first glance there is nothing unusual about exhibitions, yet they can, when organised on the basis of some of the general ESD principles, offer pupils a wide range of opportunities to acquire skills by thinking and working independently.

The exhibits themselves demonstrate how a topic can be dealt with in many different ways, according to different class levels, school subjects and even the interests and personality of the teacher.

### *Guidelines for pupils when preparing the exhibition stipulated that:*

- each class is equipped with five white cardboard boxes to be used as the exhibition area
- all topics should be presented clearly, while paying close attention to content and visual effect
- the date of the exhibition opening provides a strict time frame

The work groups completed the task largely on their own. Help was constantly available to pupils who were in need of materials or who needed to solve conflicts. Teachers acted as guides. Pupils were responsible for the content of the exhibition and for creating exhibits on time. The prospect of showing one of the exhibition boxes in the pupils' home towns added extra motivation to their activities.





Who can lend support?

*This exhibition project drew on the widest possible range of abilities (cf. Material Transfer 21)*

■ *Participating in decision-making processes:*

Decision-making processes were necessary in order to work out how to present the wealth of topics dealt with over three months in a confined space. Much thought had to be given to content, and the significance of each exhibit had to be assessed when designing the exhibition.

■ *Forming alliances:*

It was necessary to form interest groups and work groups in order to bring together similar topics in one cardboard box.

■ *Joint planning and implementation of a task:*

Good planning and division of labour are necessary to produce the best possible exhibition within a limited time frame. The capabilities of each pupil must be made clear and put to use effectively.

■ *Recognition of all kinds of skills:*

Every member of the group contributes towards the final outcome of the exhibition. They need to demonstrate not only professional qualities but also artistic abilities, craftsmanship and a talent for organisation. It is also important to involve those able to maintain the morale of a group and to motivate others to go on working.

■ *The capacity to put oneself in other people's shoes:*

How can we arouse the interest of the target group in order to effectively convey the topic? The exhibition should also be of interest to visitors who have not previously devoted time to the topic.

■ *Links with the outside world*

Allies and helpers are often needed in order to reach a goal. In this case an exhibition space had to be found in the town centre. People were very willing to help children and young people to put their ideas into practice. Support ranged from donations for the exhibition to the loan of empty shop premises. The town hall, where sculptures of all twelve school years were shown, was seen to be particularly open and willing to help





Here are the results of the classes led by the teachers presented here:

### Getting Cheesy?

Class 6t, taught by Adolf Staack

When someone asks what the future has in store for us, I answer with an image: the future depends on the people who shape it. The future needs people. The first of the pupils' tasks was to ask the citizens of Schneverdingen about their wishes for the future on a personal level, as well as for the future of the town. This naturally raised the question concerning the consequences of their own behaviour: "What would you do if ...?" Many expressed a wish to see the countryside made accessible to all, where people bound to wheelchairs could also move around independently over the heathland and thus be partly freed from their handicap. They expressed concern for social responsibility and equal rights for everybody in everyday life.



The origin of foodstuffs was also a cause for concern. What kind of journey does a piece of cheese bought in Schneverdingen undergo in order to get there? This question raised the issues of energy consumption, and the revenue from transport and the regional economy.





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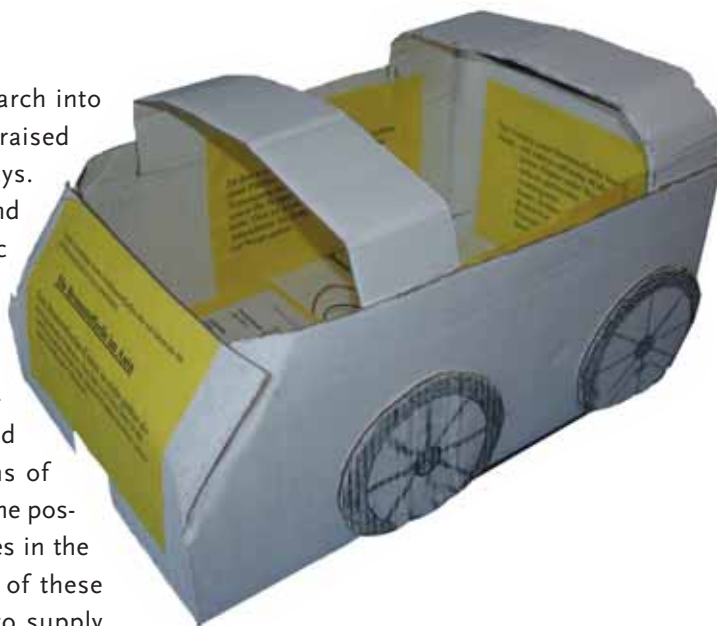
## Energy

Two classes dealt with the topic of “renewable energy”. Industrial nations consume a very large and continually increasing quantity of energy. By contrast, the reserves of fossil fuels are limited, and the oil, gas and coal on this planet will run out within the foreseeable future. At the same time, there is a growing awareness of environmental pollution caused by burning oil and coal. There are therefore several reasons why we should give attention to alternative sources of energy which are better for the environment and sustainable in the long term.

## Renewable Energy I

Class 9s, taught by Jens Tönnießen

Class 9s carried out extensive research into renewable forms of energy and appraised the information in a variety of ways. Texts, models and diagrams show and describe wind power, hydroelectric power, green energy, solar thermal energy and photo voltage, as well as fuel cells in cars. The pupils gave particular attention to technical processes, analysed the advantages and disadvantages of the various means of extracting energies, and considered the possible and actual use of these energies in the region where they live. Which one of these energy sources would be suitable to supply



Schneverdingen with electricity? To what extent are the different methods of extraction friendly towards the environment? How economically viable are these forms of energy? What kinds of projects and facilities already exist in the region?



## Renewable Energy II

Class 6i, taught by Antje Klingbeil

Pupils in class 6i split up into six groups in order to discuss the merits of different types of renewable energy: biogas, wind power, solar thermal energy and photo voltage as well as hydroelectric power. Each group worked hard to establish whether these methods could be implemented in Schneverdingen in a sustainable fashion. Advantages and disadvantages were weighed up alongside statistical data in order to develop visions of the future for Schneverdingen in the year 2050. Euphoric as well as sceptical scenarios showed what the urban features and the life of people in Schneverdingen might look like if the town switched to renewable forms of energy.





## Schneverdingen in 10 Years' Time

Class 9i, taught by Thomas Sandkühler

*How would the town of Schneverdingen have to be in the future in order to be a place worth living in?*

Pupils began by pooling their ideas and wishes concerning urban development. A common concern was that the town should acquire a solid economic basis in the form of heathland tourism, farming and gastronomy. From the point of view of the pupils, the town could be made more attractive by drawing greater attention to the Heath Flower Show, by laying emphasis on the specific characteristics of national cultures in restaurants, and by improving shopping facilities. By comparing Schneverdingen in the years 2005 and 2015, one group presented a vision of a town that was expanding with a flourishing economy and a far greater infrastructure of leisure activities. Pupils' wishes for future schooling also became apparent: some pointed out the need for a canteen, a library and



improved all-day school facilities; while in the long term they saw a need for more modern e-learning. Schools of the future will, they claim, operate in one's own home on a personal computer.

## Schneverdingen in 50 Years' Time

Class 5i, taught by Hans Fack

Pupils in the class on religious studies chose to draw their wishes for and ideas about their town fifty years from now. Unlike the other classes, they did not produce any group work. Nevertheless, the results of their work show that a lively debate took place between the members of this class. One of their main wishes was to improve shopping facilities and thus avoid travelling long distances. Their ideas on urban planning ranged from a town with extensive green spaces and without asphalt on the one hand to shopping centres on the other. An extended pedestrian zone would enable Schneverdingen to become the “favourite town for women and children”. Some pupils came up with the harmonious idea according to which “Everybody has as much money as they need”,



while others focused on catastrophe scenarios such as the arrival of a new ice age as a result of global warming. A sophisticated discussion of technology also took place. Will technology some day control our lives or can it be used to bring about a more environmentally friendly lifestyle?







## Sheep, Wool ... and the Rest

Year 8, taught by Konstanze Kaufmann  
(obligatory course)

The heath sheep play an important role in the history of Schneverdingen. Pupils from class 8 chose to discuss this topic and turned their attention to the changes that have taken place over the centuries in the fields of sheep breeding and rearing, the industrial production and processing of wool, as well as clothing and gene technology. Wool and sheep not only play a significant role in the history of Schneverdingen; they also offer insight into sustainable development in a regional context. By comparing conventional and ecological ways of rearing sheep, and by discussing the pros



and cons of chemical and vegetable wool-dyeing, the pupils dealt with the topic of environmental safety. The breeding and rearing of domestic animals and the debate about cloning living creatures is an issue that concerns biodiversity: how many and which kinds of animals does our planet require? Likewise, research about the collection of clothes for the charity “Help the Chernobyl Children” raises the question about our social responsibility towards poorer regions of the world.



## Sculptures

Art course 12: classes taught by Wilfried Baalman



Pupils from the Year 12 art class took a critical look at the relationship between people, nature and technology. Sustainability means considering planet earth as a unit in which plants and animals, as well as the sun, wind and water, coexist as if they were part of a single body. At the same time, however, modern life in industrial nations entails various negative aspects; since people also behave as irresponsible consumers, they destroy the landscape and the basis of their life along with it. They are architects of “artificial nature” and alienate themselves from nature by sitting alone in front of their personal computers.



## You and Me – So Near and Yet So Far

It is important for a sustainable social development to be able to develop skills of self-awareness and to recognise and reflect on cultural behaviours. To achieve this, Barbara Kreuzer (who gives the optional compulsory course "event management" at the KGS Schneverdingen) and Hasso Tykwer (Head of the Schneverdingen Leisure and Community Centre) submitted a creative idea with the motto:

### *Me and You - So Near and Yet So Far.*

The task was to "look for someone who seems to be totally different to you!" The young people set off to identify commonalities and differences between individuals and cultural groups living in Schneverdingen. Over the course of two months, they created a collection of 40 photos that mirrored both disparities and similarities. The authors of each pair of photos briefly depict in an essay what it was that motivated their choice. These essays report of friendships that developed within the frame of the optional compulsory course and young people carefully listening to what their friends are saying. What exactly are the differences between a

Turkish and a German wedding ceremony? The exhibition provides answers to such questions, but almost more interesting than the concept of understanding is to read what really moves young people. Open and sometimes almost philosophical texts show that the pupils did take their task seriously. The opening ceremony of the exhibition that took place in the town hall was accompanied by a wide-ranging cultural programme showing that integration does not automatically also imply conformity.

### *You and Me – So Near and Yet So Far Multicultural Cookbook*

The second product of the optional compulsory course "event management" is a gastronomic guidebook with recipes from all participants' countries. Food from England, Hungary and Saudi-Arabia are on the menu alongside German roast pork.

**Gemüse - Käse - Auflauf (Albanien)**

**Zutaten:**  
250 g Paprikaschote(n), rot  
500 g Tomate(n)  
250 g Feta-Käse  
1 TL Mehl  
125 g Butter  
3 EL Olivenöl  
Salz und Pfeffer

**Zubereitung:**  
Tomaten und Paprika enthäuten. Paprika entkernen und 5-7 Minuten in Olivenöl dünsten. Danach ca. 15 Minuten abkühlen lassen.  
Paprika und Tomaten würfeln. Die Butter schmelzen, den gewürfelten Feta dazugeben und das Mehl nach und nach hinzugeben. Mit Salz und Pfeffer

abchmecken. Das Gemüse mit der Käsesauce mischen und alles in eine Auflaufform geben. Bei 200°C ca. 15 Minuten backen.

*Torgesi e Tiranës*

*h + f...  
Eigene + ...  
h und ...  
it*

*Viel Spaß beim kochen  
wünscht euch: Janine*



*You and Me – So Near and Yet So Far*





# *Further Teacher Training*





# Games for Understanding Sustainability

## *Further Training in Sustainable Development*

Within the context of the project, a workshop on sustainability was organised for the teachers from the KGS and its partner schools in Poland, Sweden and Hungary. The aim was to offer the teachers an introduction to sustainable development that was far removed from theory and definitions. The training was designed to offer each teacher a personal approach to sustainable development while providing them with a wealth of methods that they could use on any relevant occasion.

### *“Sustainable Development – a Lively Experience”*

Winfried Hamacher and Stephan Paulus became familiar with Dennis Meadows’ methods towards the end of the 1990s; they brought them back to Germany and have trained numerous disseminators in the meantime. Since 2002 there has been a pool of disseminators across the whole of Germany who can be booked for this purpose.

“In this training, no one tells you what sustainability is; you have your own experience of it”, is a typical participant reaction. Indeed, precisely that is the goal of the activities; to create a real experience of sustainable development. During the workshop, each participant develops an idea as to why people may not behave in an environmentally-friendly manner, even when they would like to and despite being in possession of the necessary information. At the same time, methods which could lead to successful action are tried and tested.

\* Contact addresses are available at [www.nna.de](http://www.nna.de)

### *An Example:*

Your ship capsizes on the ocean and you have the opportunity to save a number of objects from your sinking vessel by taking them with you into the lifeboat. Firstly, each participant decides for him or herself what they would take. Using experts’ recommendations, your choice will be assessed as to whether or not it might help to save lives. Then you are in the same situation again; only this time you are not alone. The question is whether or not we have better chances of survival if we make the decision about the necessary objects together?

*“Sustainable development sometimes means agreeing with people you don’t like.”*

## The Workshop of the Future

A further component of the training, which, like the Dennis Meadows' activities, can also be used in isolation from the rest, is the Workshop of the Future.

*“How can we teachers interest young people in working towards a sustainable future in their region?”*

Teachers from the four European countries thought about this question in regard to their future work on sustainability. The Workshop of the Future is a method which helps to make decisions that must have everyone's support in a large group of people. The question can be varied.

During the Workshop of the Future, the participants go through phases of criticism, imagination and realisation. Before the end of each phase, there is a decision-making process, during which the topics to be taken into the next phase are filtered out. At the end, only topics that really have the potential to be implemented and, equally importantly, that the participants would like to implement, remain.

There is always room for surprises, and it is hardly ever possible to predict what result will come out in the end. In the case of the workshop with the exchange teachers, the result was surprising for most. At the beginning, there was the clear expectation that environmental topics should be discussed more with pupils in school. At the end of the day, however, the discovery was that, firstly, the pupils must be encouraged to develop a bond with their own local regions, through a generation network, for instance, whereby the pupils experience other people's interest in them and their opinions. This builds on inspiring identity, which can encourage and support a commitment to working for one's own region.

# IDEAS

*Education for Sustainable Development (ESD) - an intercultural dialogue  
IDEAS stands for Intercultural Dialogue on Educational Approaches to Sustainability*



The Georg Eckert Institute (GEI) invited an international work group made up of university teacher trainers in the field of geography to participate in a meeting in Braunschweig. Professors and lecturers from the USA, China, Germany and Palestine are involved in the current pilot phase. Since 2006, they have been developing and testing, within pilot projects running in their respective universities, specific teaching modules on Sustainable Development to be integrated into teacher-training programs. Intercultural dialogue, as an integral part of teacher training, enhances the exchange and understanding process between the countries concerned, which is essential for ESD as a topic of the future.

The IDEAS pilot phase started within the project "My region in the 21st century". After the successful completion of this phase, the project will develop into a network that will be multilaterally sponsored over several years, aimed at creating an exhaustive set of modules on key issues related to Sustainable Development within the frame of the UN Decade for Education for Sustainable Development. It is planned to enlarge the work group to include colleagues from Scandinavian and East Central European universities, as well as from Africa and from other Asian countries.

*The following universities are involved in the project:*

- Texas State University, San Marcos, Texas, USA
- Texas A&M University – College Station, Texas, USA
- Beijing Normal University, Beijing, China
- Julius-Maximilians University, Würzburg, Germany
- Environmental Education Development Center, University of Bethlehem, Palestine

*The Georg Eckert Institute (GEI) conducts an international comparison of social interpretative patterns, documents offering orientation and identity constructions that are conveyed, institutionally secured and legitimised by education systems. Teaching and learning media in the subjects of history, politics, geography and social studies play a particularly important part in such processes.*

# International Disseminators around the Lüneburg Heath



<u>regional</u>	<u>international</u>
<u>pupils</u>	<u>teachers</u>
<u>practical</u>	<u>theoretical</u>
<u>pedagogical</u>	<u>scholar</u>

These supposedly opposing terms formed the background for the exchange of ideas and experiences between NNA and the participants of several IDEAS workshops in Schneverdingen: Which experiences from pedagogical practice can be useful for theoretical, scholarly knowledge, and where may pedagogical practice, and thus also the project "My region in the 21st century", gain from a multilateral exchange?

Just how useful well-established contacts and shortcuts can be became particularly clear in September 2006, when a Chinese professor and pupils from an advanced-level geography course at the KGS spontaneously met. The pupils took this opportunity to ask questions about various topics and were given answers that were much more relevant and topical than could have been produced by any textbook.



## Visitors from China

*"He who gives no thought to difficulties in the future is sure to be beset by worries much closer at hand"*

Confucius,  
24. Lun Yu 15.12.  
(Chapter Wei Ling  
Gong)

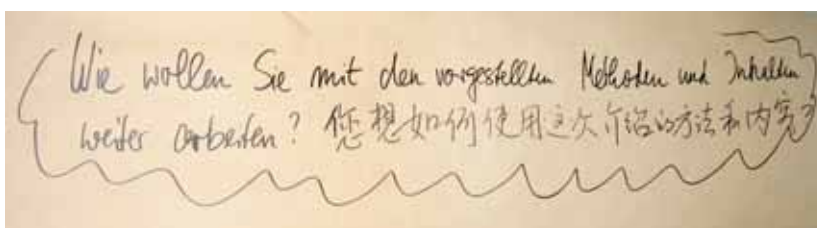
A workshop with teachers from different institutions in Peking also took place in cooperation with the Georg Eckert Institute. In this context, the group had the opportunity to familiarise themselves with these topics through nature experiences and games dealing with sustainability. They gained worthwhile knowledge of the presented methods and contents and are now striving to adapt them to their own local conditions. The school subject "Varied Practice" offers possibilities for



dealing with topics related to sustainable development. This school subject has already been introduced in many Chinese schools and games can also be performed with pupils. Chinese multipliers also see possibilities to convey workshop contents outside of schools to their pupils' parents.

Especially striking was that both Russian and Chinese participants were very keen on knowing

more about Germany. Such a keen interest in foreign cultures and the abundance of new impressions are keys for dealing with global aspects of sustainability and ESD, whether it concerns German architecture in residential areas or the initial troubles connected with an unfamiliarity with the German climate or food.



# International Disseminators around the Lüneburg Heath

## Visitors from Russia

The concept and implementation of Education for Sustainable Development is based on cross-national consensus. In our global age, individual scope for action is generally limited to the local level. Nevertheless, we share with other people throughout the world raw materials, clothing, and car exhaust emissions. We do not always know these other cultures and their problems, even if they might be similar to ours. All over the world, people have become committed to environmental protection and are striving to convey this idea to the next generation. Russian environmental educators from the region of Perm have been visiting the Alfred Toepfer Akademie für Naturschutz for several years; the last visitors to the Akademie came in September 2006. Each group is mostly made up of teachers and staff members from public administration, who are familiar with environmental topics. These visits are facilitated in particular through cooperation with the Georg Eckert Institute (GEI).



These meetings aim at exchanging experiences and gaining stimulating ideas. As the project "My region in the 21st century" is closely linked with the respective environment of German pupils, it was interesting to ask our Russian visitors about their views of their own region. Thus, the activity entitled "Starting with Metaphors" already described in the section dealing with school practices was also carried out with this group. Of course, results cannot directly be compared, as they concern children and young people on the one hand, and adults who have been committed for years to environmental protection on the other.

However, it immediately became noticeable that the Russian participants were most attached to their town and their region; they used the word "love" several times when speaking about their region. Such emotional statements are rather seldom in Germany.

Of course, the city of Perm is confronted with different environmental problems to those of a small town in the Lüneburg Heath. The high degree of industrialisation in Perm has resulted in a hardly imaginable degree of air and water pollution. But the Russian environmental educators from Perm and the pupils from Schneverdingen criticised above all the people's lack of interest in environmental and animal protection. One of the participants answered the question why one should become committed to these issues by asking: If not me, then who?

*If not me,  
then who?*





## Looking Back and Looking Forwards?

### *Some experiences from our work with school pupils*

The pupils basically showed a receptive attitude. The closer the topics on sustainable development came to their own environment, the more involved they became in their studies. The different age groups were diversely involved in the activities. The pupils of years 5-7 and 12-13 showed more motivation than those of years 8-11.

We had to perform several balancing acts with the pupils during the work process. It clearly emerged that on the one hand, pupils need a solid basis in order to become involved in something new, yet they also want to be free to develop their own ideas at the right time.

The pupils should and want to be seen by adults as experts for their own region and environment. ESD means for adults to become aware that the elder generation cannot provide answers for the younger generation, even if they have rich experience. A balancing act also consists in recognising the borderline between challenge and excessive demand. Sometimes a real effort was demanded of the pupils, for example when calling or approaching unknown persons in order to obtain information; however, they experienced pride when their efforts resulted in success. The change of role from pupil to active citizen was easier to manage outside of school. Pupils become more involved in new learning schemes when they are out of the classroom, or when traditional teaching schemes are changed.

*Pupils become more involved in new learning schemes when they are out of the classroom, or when traditional teaching schemes are changed.*

### *Cooperation*

#### ■ with the KGS

The cooperation with the KGS was highly constructive. Furthermore, contacts were established during the project with non-involved teachers who addressed the NNA, which shows that the NNA is seen as a competent institution providing support and ideas.

#### ■ with the town of Schneverdingen

The representatives of the town of Schneverdingen were most receptive to the pupils' requests and activities and expressed their wish to continue the dialogue.

#### ■ with the Georg Eckert Institute

The cooperation with the GEI will be continued. Contacts will serve to ensure an intercultural dialogue on ESD standards and methods.

## Reflection on our Work and Future Plans

### *The Future of Learning Packages*

The new project “FÖJ an Ganztagschulen” (voluntary ecological year in all-day schools) will ensure the intensive use and continuous examination and review of the learning materials developed. To this end, the Alfred Toepfer Akademie für Naturschutz will create 20 additional 3-year FÖJ jobs from August 2007 onwards. The future FÖJ participants will be trained in preparation for the contents, methods and goals of the learning packs and will learn how to use them within the program of all-day schools.

### *Sustainable (Co)Operation*

Projects offer space for new ideas and initiatives, and thus meet ESD demands. Project work developed within a limited time schedule, however, is often hardly sustainable, as new or renewed contacts with other involved persons or institutions are mostly no longer maintained after completion of the project. Nevertheless, such relationships are of crucial importance for a sustainable achievement of educational activities



## Teacher Interviews

*What are the results? Did we reach our goals?*

Part of the external evaluation involved telephone interviews with the KGS teachers who had developed project activities with their classes during the school year.

*Experiences and evaluations of the teachers interviewed:*

- External cooperation partners offer new resources to schools: inspiration, motivation, work sharing and, last but not least, materials and funds.
- Successful cooperation with an external institution strengthens the teachers' position when it comes to discussing future projects with the school leadership.
- The new way of working has stimulated the pupils.
- The pupils' perception of the region in which they live has changed.
- The class has acquired or improved key skills in the fields of information, team work, developing a sense of responsibility and the ability to act.
- The extra time devoted to the project work was very rewarding.
- The current curricular framework (introduction of a pan-state school-leaving certificate in Germany) makes it difficult to integrate additional topics into school courses.
- Sustainability is best dealt with through project weeks.

*External project  
evaluation -  
Teacher interviews*

*"Projects with  
externals are  
worthwhile"*

*"Get out of school!"*

### *Integrating Sustainability into the Curriculum*

The comments of the teachers interviewed differed greatly, ranging from "the curriculum does not allow space for it" to "the topic can easily be linked with any school subject".

It therefore greatly depends on the school subject and level, and whether and how easily the topic of sustainability can be integrated into school tuition.

## Pupil Interviews

*What are the results? Did we reach our goals?*

The pupils were interviewed in three groups made up of participants of the strategy workshop, of the classes involved in the project activities and of previous year's courses.

The continuous project work over the school year and the final three-day strategy workshop were evaluated in quite different ways. Altogether, the intensive form of the workshop received a better assessment, but this evaluation might have been strengthened by the fresh impressions or by the – often positively mentioned – change of scene.

*Some Experiences and Evaluations:*

- Different aspects of group work (exchange, efficiency, fun, debate), work with previous knowledge and testing in new contexts.
- Both younger pupils and advanced-level pupils particularly enjoyed the freedom they had within the project for creating exhibits.
- Information channels concerning the date and venue of the exhibition were criticised as being insufficient.

This last response shows that significant facts must be directly conveyed to pupils and information be forwarded to them through several channels at once if possible. An announcement in form of a school poster would have helped to fill the gaps.

A remarkable result was that the pupils grasped the abstract concept of “sustainability” and were able to link it to their own environment.

*External project evaluation – Pupils interviews*

*Sustainability means to me: “Becoming more aware of things and my own actions“ (1st quotation)*

*“Looking to the future considerately” (2nd quotation)*

*“Space for free activities in the classroom!”*

# Bibliography and Links

www.nna.de

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German Committee for ESD

[www.unesco.de](http://www.unesco.de)

German Commission for UNESCO

[www.nachhaltigkeit.info](http://www.nachhaltigkeit.info)

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Coordination Office for ESD in Schools

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