



WWF

REPORT

Sustainable Schools

– schools working with sustainable development

SUSTAINABLE SCHOOLS

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A WHOLE SCHOOL APPROACH IN ESD

When you eat a slice of Blueberry Pie, send the bumble bees and bees a grateful thought. In the month of May these insects pay a visit to the blueberry flowers in our forests and spread their pollen. In a few days a single bee can pollinate 50000 blueberry flowers – a service that researchers have valued at 500 SEK.



We humans get a lot of free services of this sort from nature. Pollination is one, water purification, oxygen production and aesthetic experiences are others. But these so-called ecosystem services are threatened by climate change and our consumption of goods – among other things. We leave a mark, a so-called ecological footprint, which in the Western world is far too large. In Sweden, we live as if we had almost three planets to support us. It is a crucial for us to quickly reduce our ecological footprint, and thus our use of resources.

Here schools are of great importance when it comes to developing knowledge about the way we live, and the challenges that await us – how we individually and collectively can play our part in ensuring a happy and healthy life for everyone within the natural limits of one planet. It all comes down to strengthening children's and young peoples' action competence so that they can meet life with a belief in the future and the conviction that current and future challenges can be conquered.

It is against this background that the World Wild Fund for Nature has worked for more than three years with ten different Swedish schools in the Schools on the Path to Sustainability project. These schools are living and real-life examples of how to develop the values, leadership, teaching and other things connected with a school, such as school property, playgrounds, and the immediate neighbourhood, under one umbrella. Let's call this a whole school approach in ESD.



A handwritten signature in black ink, which appears to read 'Håkan Wirtén'.

Håkan Wirtén
Secretary General
WWF Sweden

For three years, The World Wide Fund For Nature, WWF, has collaborated with ten schools in Sweden in a sustainable school project.



DEVELOPMENT WORK THAT INSPIRES

WWF staffer Gunilla Elsässer talks about a project in Africa: “I find myself besides Lake Victoria in East Africa. My Tanzanian colleague and I are discussing and formulating a training program for the Lake Victoria basin.



It is difficult to take in the whole gigantic catchment basin with its 27 million inhabitants at one go, so we have begun in a few well-defined areas which may serve as inspirational models.

In each of these areas we cooperate with a number of selected schools, villages and teacher's colleges. The challenges are great: 70 percent of the forest and 80 percent of fish species in the lake have disappeared. There is widespread poverty and HIV/Aids are commonplace. The list can be made long. The training of many teachers in the schools has been rushed, class sizes of 80-100 children are common, there is a great shortage of materials and no lunch is served to children who have often come a long way on foot. Teaching directly from the teacher's desk and other traditional teaching methods are prevalent. How do you prepare schools to embrace learning for sustainable development under these conditions? We have started professional training courses for all staff members at each school, although this took time to get off the ground. The results of our training programmes has been outstanding, teachers have changed their teaching methods, schools have been transformed from bare ground into green oases where theory and practice are interwoven around the sustainable exploitation of natural resources – knowledge that the pupils can bring home and take with them out into the community. Not only have pupils become more motivated and competent to act for a more sustainable future but their overall performance in school has increased considerably. What can we in Sweden learn from East Africa and vice versa?

Sweden has good prospects

Here in Sweden there are schools carrying out exceptionable work with Education for Sustainable Development (ESD). However the method has not been adopted by all, despite the fact that we have all the necessary prerequisites. We have amazingly talented educators, our schools have teams that can facilitate an interdisciplinary approach, and we carry out more research in this field than any other country, etc. Additionally, in an international perspective Sweden has come a long way. Nevertheless, we should have progressed further!

Towards the sustainable society

How do you contribute to sustainable change in society? There are obviously no straightforward and simple recipes here, and this is a good thing. However some theories and studies show that new ways of thinking and acting can be propagated through innovations, and by innovators in the forefront of development. Behind these are various groupings of the majority that adopts innovations more or less quickly. Bringing up the rear are those who don't like change, and are principally governed by laws and regulations. Of course reality is not this simple and linear, but complex and dependent on many situations and circumstances. WWF believes that good models can be sources of inspiration, pedagogical examples and strategic objectives. They may also be disseminated to influence decision-makers and to enhance policy development.”

Six development areas

At the same time we were wondering how to develop the model school concept here in Sweden. Our British colleagues at WWF UK had been working with a number of schools for a period of several years – letting researchers follow the process as it developed. Six development areas were identified that could be used to grasp and apply sustainability principles within the school. Six areas that our Swedish model schools now implemented as well. Work in the UK led to a new WWF publication called *Pathways – A Development Framework for School Sustainability*. This was translated to Swedish as *Framtidsstigar (Future Paths)*. It contained, among other things, a self-assessment tool that proved valuable in conjunction with development work in school (see page 33).

A learning journey

For three years now, together with ten schools on the Path to Sustainability, we have been on a learning journey. In this report you can share our thoughts and experiences. We hope that it will give birth to new ideas and inspire you to embrace the principles underlying learning and education for sustainable development for the whole school.





THE ROLE OF THE SCHOOL IN SUSTAINABLE DEVELOPMENT

It is August 2010 and Russia is experiencing the hottest summer for a thousand years. At the same time 20 million people in Pakistan are fighting a gigantic flood disaster.

In Sweden for example we note that 70 percent of Europe's butterflies have disappeared since the 1990's and a new report shows that Baltic eider ducks have greatly decreased in number, which indicates that the Baltic Sea is still in a bad way.

The western world's appetite for more and more gadgets creates ecological footprints that are far too large, and we are constantly being reminded of changes in climate.

We only have one planet

Every two years WWF publishes a report on the prevailing conditions on our planet. The Living Planet Report 2008 (LPR) analyses the current state of our world and the impact our consumption has upon it. The health of ecosystems and species is extremely important since we only have one planet. According to LPR we are consuming the Earth's natural resources at breakneck speed. If we continue along this path, within a few decades we will need resources equivalent to two planets to support humanity's demand for energy, food and consumer goods.

Biodiversity

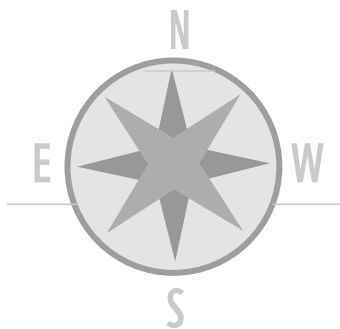
The Living Planet Report identifies two trends. One highlights the indicator species that reflect biodiversity. These have decreased sharply in the last 30 years. Many argue that biodiversity leads to greater stability and the ability to cope with current and future needs, such as medicine. Nor do we know if it won't be possible to cure diseases that may appear in the future with the help of natural medicines. Aesthetic and ethical reasons are important arguments for biodiversity. We usually divide the term into three levels: the diversity of species, the diversity of the ecosystems and genetic variation within species.

Ecological footprints

The other trend identified in the report highlights ecological footprints and deals with the way in which humans use natural resources and nature's capacity to absorb the waste man creates. Everything we humans do has an impact on the environment in one way or another. The food we eat, the clothes we put on – everything that we produce impacts the world's forests, oceans, rivers, soil, air, animals and plants. The more we produce and consume, the more we affect every living thing around us. When we study our ecological footprints, we understand more about this impact and are better able to contribute to society's transition towards a more responsible production and consumption.

If we were to divide Earth's productive area by the number of people on Earth, every one of us would be allotted 1.8 Global hectares. The Swedes have an average ecological footprint of 5.9 global hectares and are ranked 13 in the list of countries with largest footprints per person. If all people were to live as the Swedes do we would need three planets. When ecological footprints increase in size biodiversity diminishes correspondingly.

3 PLANETS
WOULD BE NEEDED IF EVERY-
ONE LIVED LIKE THE SWEDES



Learning for Sustainable Development can be compared to taking a compass bearing for the future.

The role of the school in sustainable development

In many countries human beings live outside the ecological boundaries. Species and ecosystems are decreasing and being degraded while ecological footprints are on the increase. What role can schools play here? The social development that has taken place over the last decades and increasing global environmental problems caused the United Nations in 2002 to proclaim the Decade of Education for Sustainable Development 2005– 2014. The idea was that all the countries should adopt this overarching perspective and develop a teaching characterized by a multidisciplinary and holistic approach. Pupils were to be encouraged to develop critical thinking and assume responsibility in the school.

Sustainable development means fulfilling the needs people have today, and at the same time preparing to meet the basic needs of coming generations. Three aspects of sustainable development are usually focused upon: ecological, social and economic. Human activities must take place within ecological constraints and in a sustainable way. Here formal and non-formal teaching has an important role to play in developing an action competence built up of worthwhile knowledge and motivations, but also makes it possible to carry out and bring to fruition newly gained insights and needs. In this paper we utilise the concept Education for Sustainable Development (ESD). This term sums up the school's drive towards a sustainable future. This is not an off-the-shelf solution, but the process it involves can be compared to taking a compass bearing for the future. The final destination is unknown but a direction – a vector – can be plotted and be used to join together the ecological, social and economic aspects of social development. ESD can also be described using the metaphor of a winding path – embarking on a journey. The activities carried out during this journey should be characterised by participation, reflection and contrasting perspectives.

Action competence for sustainable development

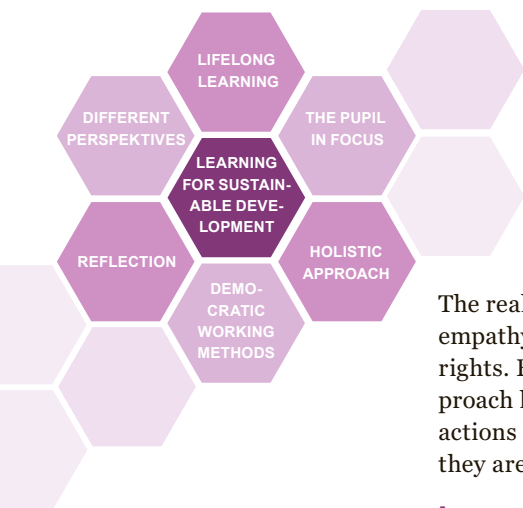
The school has an important role to play in breaking two major current trends – biodiversity loss and growing ecological footprints. We must develop a personal action competence for sustainable development. This boils down to our willingness and ability to influence lifestyles and living conditions, while assuming global responsibility and a respect for coming generations, but also to how we are to acquire the skills and knowledge needed to participate actively in the development of society. How can we embark upon a new and environmentally-friendly path? How can we change our way of life? Three factors influence our ability to act – increased knowledge, the availability of multiple options and a personal driving force – an inner and outer motivation.

Action competence is built on three pillars. Knowledge is about undiluted facts, practical skills, deeper understanding, broad awareness and wisdom, in short, what we know. This potential means that there are different options and physical opportunities open to almost everyone – we can! Motivation is an internal driving force that impels me to want to change myself. I have an attitude – I want – and I see the opportunities offered.

A broader view of action competence is given by researcher Ellen Almers at the School of Education and Communication in Jönköping. She believes that action is predicated on the knowledge we possess. Morality at a distance is the core of sustainable development. That is to say, our ability to feel responsibility for people and living things at a temporal or spatial distance – i.e., life in the generations to come and in other parts of the world. Here action competence means you are following the precepts of morality at a distance when you take responsibility for actions that will have an effect on future generations and in places far away.







The realisation that something is wrong in the world may cause a child to react with empathy, indignation, sorrow, frustration, etc., and invoke the desire to put it to rights. Emotional responses to worldly injustices prompt the child to adopt an approach linked to an appropriate role-model. When children see that the decisions and actions of individuals in society steer development and have definite consequences, they are inspired to act themselves.

Learning for sustainable development

What characterizes teaching and learning for sustainable development? WWF highlights six pillars that Education for Sustainable Development is based upon. ESD helps us develop skills, abilities, values and motivations that allow us take conscious and well-thought-out decisions together with other people, and to act to ensure a happy and healthy life for everyone within the natural limits of one planet. The following explains briefly the significance of our six pillars that have their roots in the UN Decade of Education for Sustainable Development proclaimed in 2002:

“In our Swedish school classes we read among other things Gargantua by Rabelais, a satire on the schools of the period. We discuss: What skills did Renaissance man need to succeed in society? Pupils ask their friends and parents what they think, and discuss what is needed today. Then they write an essay, drawing on their knowledge of the world around them, their own skills and human rights. It usually turns out very well!”

Emma Johansson,
Teacher in Swedish and
English at Porthälla
upper secondary school.

Holistic approach

- Provides the ability to link issues of ecological carrying capacity to issues of social justice and economic sustainability
- Promotes interdisciplinarity and subject integration

Lifelong learning

- Paves the way for rethinking and thinking anew, and for adopting innovative strategies
- Works process oriented and values both process and result
- Shows progression and is solution oriented

The pupil in focus

- Targets learner issues and knowledge
- Based on an approach to learning in which individuals create their own knowledge in interaction with others.

Democratic working methods

- Gives the learner the opportunity to influence the school or workplace and work in outreach programmes – lets them become active joint creators of their own education and community work
- Coach abilities needed to be an active member of society, e.g., formulate and analyse questions, participate in debates, make choices and actively test and develop strategies and solutions

Different perspectives

- Encourages critical review from different perspectives and taking a stand in conflicts of interest
- Debates about values and interests are central
- Uses schools, educational institutes, the surrounding community and nature as learning arenas and to develop participation and cooperation

Reflection

- Develops the capacity for a critical analysis of the direction in which we are heading, develops, tests and evaluates visions and strategies for a more sustainable society
- Encourages both inner and ongoing reflection and a more concrete way of listening, speaking, writing and artistic creation
- Clarifies, is active, challenges and develops personal values and behavioural patterns



WWF cooperates with a key people in the education sector and elsewhere.

Schools on the path to sustainability

To accelerate the process of building up Swedish schools in Learning for Sustainable Development WWF has participated in the Schools on the Path to Sustainability project together with ten so-called model schools. This project follows up and supports the work of these schools to incorporate all activities taking place in the education sector, turning themselves into role-models and placing them in the vanguard of sustainable development.

Key people

WWF is a worldwide organisation that among other things strives to lay down the ground rules for the use and distribution of the resources on the planet or to put it this way – how human beings can create a happy and healthy life for themselves and for everyone else on one planet. We cannot do this by ourselves but must interact with key individuals everywhere. You will find lots of these in the education sector – from pre-school to university.

The next step

Lessons learned from the Schools on the Path to Sustainability project are now carried over to various networks and structures in the education sector. It is our ambition to strengthen the role of the school as a local player. When students work with real issues they become motivated and able to make an important contribution to society.

WWF's objective is to influence school development at different levels: the ten model schools, politicians and officials, the Ministry of Education, The Swedish National Agency for Education, teachers' unions, municipalities, county councils, etc. Our aim is to help students acquire knowledge and apply it working for vital change in which a reduced ecological footprints and smart innovations go hand in hand.

Visualising the future

"Our students are extremely interested – they are passionate about the future and are definitely prepared to take on responsibilities. Schools are pivotal locations if you intend to work with important future issues."

Lars Benon, Headmaster
at Global College

Each development process is a journey made up of different kinds of ingredients – both familiar and unfamiliar. Integration of the new with the old takes place in different stages. Building a society that will be sustainable in the future is not something that happens by itself – decisions that will affect the future must be made here and now. Those of us who work as education professionals in this sphere are needed to visualise the future – paint a picture in words and images of how things look at the moment and how they may appear tomorrow.

The building of a sustainable society picks up speed when resolute citizens are not afraid to go the extra mile along new lines of thought for the survival of the planet, both by acting and refusing to act, choosing rulers who dare to take courageous decisions. All work for change takes time. Democracy takes time. Politicians implement the policies that have the support of the voters.

In the autumn of 2010 a poster in Sweden proclaimed – The Future Begins in the Classroom. Let us start there – or in the extended classroom all around us – creating a living relationship with the fantastic globe we live on. Experience diverse and ingenious nature all around you, but make sure that you foster that which is good and inspirational in the way you build society and fight for the planet, today and tomorrow – not out of duty but because of devotion and thankfulness to the Earth and the diversity of life. If those of us who work in schools cannot describe how a sustainable society may look in the future how then can pupils aspire to attain it?

SCHOOLS THAT TEACH SUSTAINABLE DEVELOPMENT

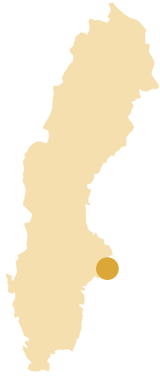
Schools on the Path to Sustainability is a three-year project working with ten schools across the country. Pre-schools, comprehensive schools, upper-secondary and a university college have developed Learning for Sustainable Development together with a tutor. An attempt has been made to target the whole school, i.e., teaching methods, core values, management, structure, school premises, etc. An important aspect has been the attempt to reduce ecological footprints.





BJÖRKNÄS SCHOOL

Björknäs School is located in the municipality of Nacka, just outside Stockholm and close to the Baltic Sea. It is a nine year comprehensive school with just under a thousand pupils and a hundred staff members.



The school lies in the midst of a residential area with detached houses, but a bit further away you can find terraced rows and apartment buildings. Björknäs School adjoins a large sports venue and there is a ten minutes walk to a small centre with a few shops. In the school's vicinity there is both water and woodlands and it is only a fifteen minutes bus ride to Stockholm's city centre.

On the path to sustainability

The effort to become a school on the path to sustainability began with a period of intensive further training sessions for the entire staff built on WWF's material Paths to the Future. This gave them a good working knowledge of the three aspects of sustainable development – ecological, social and economical. This also resulted in the discovery of a common ground to stand on: What does Learning for Sustainable Development mean to us? One of the first steps we took at the school was to introduce life skills into the curriculum for all classes from pre-school to year seven. The objective was to develop the social learning environment of the pupils and this was seen as an important component of the sustainability effort. Up to today, 2010, we have held lectures, conferences, workshops, training sessions, etc., to further educate everyone in the school. The municipality of Nacka has a Sustainable Development Group where members of staff from Björknäs School also participate.

What we take with us

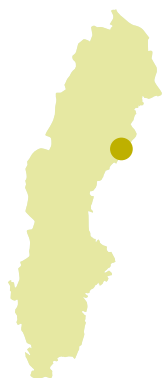
- Learning for Sustainable Development is something we can't choose to do without – we just have to find "our" way
- Implementing Learning for Sustainable Development is a process – it must be allowed to take time if it is to be accepted by everyone
- Keep the conversation pot boiling – discuss environmental and sustainable development continuously

www.bjorknasnacka.se



HEDLUNDA SCHOOL

Hedlunda School in Umeå is home to around 150 six-year olds attending a pre-school class.



Here you will also find all Umeå's preparatory classes for school years 1-9, where children newly arrived in Sweden get their first meeting with the Swedish school system.

Hedlunda School is located in an urban environment along a busy street, but it's close to both stretches of river and parklands.

On the path to sustainability

Staff at Hedlunda School feel that working as a model school and striving to become a school on the path to sustainability has been, and still is, a journey with ups and downs. Staff commitment has varied and from time to time both time and energy have run out. However now they feel that the curve is pointing upwards and that thoughts and ideas about learning for sustainable development are becoming more and more integrated in all teaching carried out at the school. Previously teaching about the environment and sustainable development was compartmentalised in individual projects, but now is seen to be more a natural part of the daily activities of the school.



When the Schools on the Path to Sustainability project was inaugurated an ice carving in the form of a panda was unveiled.



"Eco detectives from Hedlunda preschool", says this button.

What we take with us

- Match teaching to that which pupils already know
- Involve parents in the undertaking
- Give the teachers responsible for the project the time to carry it to completion
- A committed and supportive school administration is alpha and omega

www.skola.umea.se/hedlundaskolan

HOSJÖ SCHOOL



Hosjö lies just over seven kilometres east of Falun town centre. Until the 1960s it was a separate municipality and this gives the district its own particular character even today. Hosjö is seen as a separate town and boasts its own shops, a ski resort and football field.

In the vicinity of the school there is an industrial area where a variety of different companies operate and many of the pupils' parents work there. Approximately 44 people work at Hosjö School and they meet the 300 pupils who attend the school for the first six years of their school life on a daily basis. The school is within walking distance of both forest and open country and lies close to two lakes, Hosjön and Runn.

On the path to sustainability

In recent years Hosjö School has worked with a range of issues concerning learning for sustainable development: How do we encourage adequate pupil participation in sustainability issues? What does the term "equal treatment" mean to you and what does it have to do with sustainable development? How can democracy create a more sustainable world?

Some concrete results:

- Learning for sustainable development is integrated into individual development plans and quality statements
- Much of the work plan is guided by sustainable development and linked to pupil participation, equality and democracy
- Pupil participation is given priority, and among other things a pupil council, library council and environment council have been set up
- The Sustainable Hosjö School Open House event has become a valued tradition to which parents, administrators, politicians and people living in the neighbourhood are invited. Pupils' thoughts and ideas are based on a long-term theme work and everything is exhibited at the end of spring term
- The school works actively to reduce ecological footprints. People walk or ride bicycles to school, cloth bags are manufactured and sold, the proportion of vegetarian food served at school meals is on the increase and the school participates in a competition where the school who collect most aluminium nightlight containers win



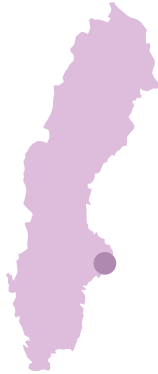
What we take with us

- Listen to the pupil's own thoughts, trust their abilities and encourage them to believe in their capacity to change things
- Shared ESD teaching that everyone in the school participated in means that we all now pull in the same direction
- Engaging in outdoor pedagogy as a leisure pursuit has been a common green theme in work throughout the whole school
- Staff participation is vital
- Establishing a clearly defined objective where pupils are able to show what they have accomplished to parents and others in the school – e.g., the open house Sustainable Hosjö School event in May where we illustrate how we have worked with sustainability issues during the year

www.falun.se/hosjoskolan

THE GLOBAL COLLEGE

The Global College is an upper secondary school located in the centre of Södermalm.



The school started in 2004 and has occupied its current premises since late 2008. 530 pupils attend one of three programmes: The natural science programme with a health and environmental profile or the social science programme with a choice of either a global or arts profile. There are about 50 members of staff currently employed at the school.

On the path to sustainability

The vision underlying the school is to offer education clearly seated on the three pillars of sustainable development; economy, society and the environment.

There are four leading principles in the Global College profile:

1. Learning for sustainable development
2. Project oriented methodology
3. High level of pupil participation
4. Close cooperation with Plan Sweden, World Wildlife Fund WWF, Stockholm Resilience Center and Södertörn University



What we take with us

- To develop action competence for sustainable development not only requires knowledge and motivation but also the opportunity to act. It is therefore important that the environment and teaching provided by the school gives pupils a space in which they can act for sustainable development
- Starting off from complex and authentic problems makes education meaningful and pleasurable
- However it is still a challenge to find work methods that are capable of putting the pupil in the centre

www.globalagymnasiet.se

POLHEMSGYMNASIET

The Polhem secondary school is situated on the islet of Lindholmen which lies almost in the middle of Gothenburg. You can get there by bus or a short ferry ride.



The school's 960 pupils and 80 staff members share this location with several other high schools, colleges and a number of different companies. As a pupil at Polhem School you can read either the Natural Sciences Programme, the Social Programme or the Technology Programme.

On the path to sustainability

In one sense a secondary school is several schools in one, as there are often a more than one headmaster and multiple programmes. This means that it can be difficult to get everyone involved and committed to a common cause. At Polhem considerable attention is paid to each teacher's individual responsibility at course level, i.e., each teacher is required find a motivation based on their own particular situation. Discussions at Polhem focus on finding the learning aspect in Learning for Sustainable Development, and not getting stuck exclusively in the sustainable development part.

It is important to ensure that the pupils are on board.

Today the school is working to give all courses a "sustainable development stamp", that is, learning for sustainable development must permeate all courses regardless of which programme a pupil reads.

What we take with us

- If the work is everyone's responsibility, the result is often that no one takes responsibility. We need a working group that assumes responsibility
- Avoid getting bogged down in discussions on recycling and energy conservation
- Broaden the discussion to include ecological, economical and social issues
- It is important to ensure that the pupils are on board
- To ensure continuity in learning for sustainable development this must be built into all courses from the very beginning



NORRSUND SCHOOL

“A day away from Vaddö is a day wasted”. This is a common saying in the small community of Älmsta located on the island of Vaddö 35 km north of Norrtälje.



*Use the community
as classroom*

Here lies the Norrsund School where about 150 students in years 7-9 and 21 members of staff spend their days with Vaddö Channel as their nearest neighbour and within walking distance of the Sea of Åland. Älmsta belongs to the Vaddö district and here you will find self-employed workers, small industries, farmers and fishermen, whose contributions to the community ensure that it is characterized by an active and vibrant entrepreneurship.

On the path to sustainability

Even before Norrsunda School became a model school, a school on the path to sustainability, there was a

will and commitment among staff members to environmental and sustainable development issues. However, there was no consensus on how to deal with these issues and this resulted in several different projects being carried out without context and without a common thread or theme. When the model school work began in 2008 a strategic objective was set up: Norrsunda School would strive to highlight and promote sustainable development in the community and to limit the ecological footprint of the school and district.



What we take with us

- Use the community as classroom
- Tasks the pupils undertake should be “for real”, everything they do should be put to practical use. For example: Establish a contact with the local press and send letters to the editor
- Work areas should be inspiring, but clearly delineated, so that they are manageable and orderly

www.norrsundsskolan.edu.norrtalje.se

RUDBECKIANSKA GYMNASIET

In 1623 Bishop John Rudbeckius founded this institution, Sweden's first upper secondary school. There was also a prison, where pupils, teachers and priests were sent if they did not follow the school rules.



The Rudbeckianska Upper Secondary School is located in the city of Västerås in the old town centre where history and tradition live side by side with modern teaching and a wide variety of cultural and sports activities. Today the school houses 1450 students and 130 staff and is led by a Vice-chancellor and three headmasters.

There are two councils at the Rudbeckianska School, the International Council and the Council for Sustainable Development. These act as advisory bodies for decisions to be taken by the school management

On the path to sustainability

Since 2008 Rudbeckianska works with class profiles and with an internationalization focus on global issues seen in a sustainability perspective. Some of the profiles, one in the Science Programme and one in the Social Programme, have a specific international assignment which deals with learning for sustainable development.

The school is also engaged in initiating and participating in a network of schools with similar missions.

Prior to the revision of policy documents Gy2011 staff at the school collaborate in efforts to propose courses profiles and specializations that have a ESD profile.

What we take with us

- The interdisciplinary and obligatory sustainable development project in year 2 is highly valued and today many pupils choose their 100 points project within the SD area
- It can be difficult to target with the whole school and get pupils and teachers as well as other staff involved
- There are significant challenges to tackle when several organizations within the municipality must coordinate decisions

www1.vasteras.se/rudbeckianska



PORTHÄLLA GYMNASIUM

It takes seven minutes by commuter train from Gothenburg Central to get to the adjoining suburb of Partille. In Partille centre, adjacent to the Cultural Centre and Library, lies Porthälla Upper Secondary School.



There are just over 900 pupils and 130 members of staff. The school has a motto, “See you in Porthälla”. Everyone, both pupils and staff, are to be seen and treated as individuals and made to feel good at the school. There are large natural areas in the vicinity and Säreån River, which has been accorded Natura 2000 status, runs close by.

On the path to sustainability

In 1991 Porthälla initiated its environmental and sustainability undertaking by setting up Agenda 21 groups and environmental councils. It became a Green Flag School, was designated as an Environmental School by the Swedish National Agency for Education. Since 2008, as a direct continuation of this endeavour, the school has been made a model school – a School on the Path to Sustainability. Part of the work involved here was the transformation of environmental and sustainability issues from something previously dealt with under individual and isolated topics into a consolidated team effort.

The school is now embarking on a new venture: A Natural Sciences Programme with a Future Studies Profile. This programme was launched in autumn 2010 with a focus on Learning for Sustainable Development.

What we take with us

- Identify creative people and to encourage large and small ideas in ESD work
- Reach out with the SD work being done at the school and give pupils and staff the opportunity to show what they are doing
- Provide a comprehensive picture, outer and inner, of what the school’s sustainability work is all about and what it aims to achieve. This means that the school must have reached a consensus on SD and that everyone connected with the school is involved – including other staff, the municipality and property owners

www.partille.se/gymnasieskolan



SJÖFRU SCHOOL AND TOMTEBOGÅRDS PRESCHOOL AND SCHOOL

In one of Umeå's newest neighbourhoods, built in 1990, you will find Sjöfru School and Tomtebogård Preschool and School.

Some 550 pupils attend these schools, about 78 attend the preschool nurseries and the rest in classes up to school year 9. There are around 75 members of staff. The area where the schools are situated is a mixed develop-

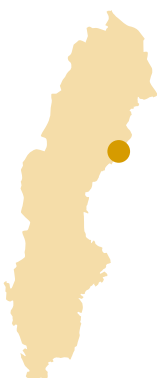
ment with residential apartments, condominiums, townhouses and villas. The two schools are located centrally, but are close to both forest and lakes. There is a small kiosk and a pizza restaurant nearby. Downtown Umeå is only five miles away and can be reached easily with the local bus, a journey of 15-20 minutes.

On the path to sustainability

Since Sjöfru School and Tomtebogård Preschool and School were already engaged in environmental and sustainability issues, it was natural to say yes to becoming a School on the Path to Sustainability. The process has been allowed to take time and an important part in its development was that sustainability issues were always discussed when the teams met.

Teachers' skills have grown in recent years and today learning for sustainable development is an integral part of the school work plan. A teacher at the schools devotes 2h/week to introduce new teachers to model school work. Everyone must take part!

Sjöfru School and Tomtebogård Preschool and School see outreach activities where they participate in trade shows, give lectures and receive study visits to share their experiences about working with sustainable development as part of the undertaking.



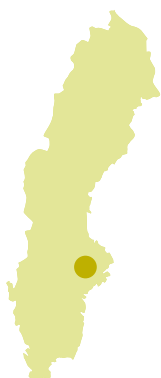
What we take with us

- It is extremely important to have skill development and training programmes for the staff
- Show what has been done in connection with learning for sustainable development – there is more here than first meets the eye
- Each individual teacher and team must be allowed to find their own methods and procedures with learning for sustainable development

Sjöfruskolan: www.umea.se Tomtebogårds förskola och skola: www.skola.umea.se



MÄLARDALEN UNIVERSITY



“In the course of their operations, higher education institutions shall promote sustainable development to assure for present and future generations a sound and healthy environment, economic and social welfare, and justice.”

§ 5 The Swedish Higher Education Act

A model institute of higher education has been included in the Schools on the Path to Sustainability project, Mälardalen University, founded in 1977, has about 13,000 students and 1000 employees.

There are annually about 750 courses, 65 programmes, 50 professors and 4 academies – this means that the preconditions for learning and education for sustainable development are quite different. Here is the Academy for Sustainable Society and Technology that focuses on skills for sustainable community building. The aim of the university is to contribute to society’s sustainability efforts through education and research, through contacts with the community and through the daily operation of its activities. The principal results of these three years are listed below.

WWF’s model school project was integrated into Mälardalen University’s own profile work for sustainable development.

Some of the activities held:

- Sustainability Day 2007: 40 employees at Mälardalen University gathered together to present different aspects of sustainability projects at the university
- The dialogue process 2007: 450 of the university approx. 1000 employees were informed about the university’s profile work for sustainable development and that the university has been chosen as model school by WWF
- Workshop series with about 20 meetings from 2008 to 2010: Teachers from Mälardalen University met to discuss the implications of sustainable development and to develop materials and a description for a course in sustainable development
- SD course: Course and textbooks / anthologies designed for a mandatory course in sustainable development. In the first phase, however, the course “Sustainable Development – A Multidisciplinary Introduction”, will be offered as an optional course in the spring of 2011 and will be completely web-based.
- Report Series “The sustainable way”: five very interesting interim reports produced during the years 2008-2009 can be downloaded for free (<http://www.mdh.se/university/foundations/sustainable/profile-work/reports>)
- Learning Sustainable Ways: Participation in the steering committee and project team for the production of this WWF document.
- AISHE (Auditing Instrument for Sustainability in Higher Education): The University has actively contributed to the development of the current AISHE standard and its future versions through seminars and as co-author

What we take with us

Being a model college has meant getting legitimacy for SD profile work both inside and outside the university college. This can be seen in such activities as network meetings in broader university circles e.g., the the HU2 network (Högre Utbildning för Hållbar Utveckling i.e., Higher Education for Sustainable Development). Support from the vice-chancellor for the integration of a sustainable development perspective into core activities via AISHE work, and an overarching interuniversity SD course that can be read by all students, has been crucial for those of us engaged in profile work. The vice-chancellor has supported the SD profile work for a period of three years, both personally and by placing financial resources at the group’s disposal, but this kind of effort needs to be made permanent, which has not been done at the college. In this sort of work long-term investments are critical.

A photograph of two children in winter clothing. The child in the foreground is a young boy with a brown beanie featuring a white letter 'B', a brown jacket, and pink gloves. He is holding a large cardboard box. On the box is a drawing of a yellow sun. Behind him is a girl with blonde hair wearing a fur-lined hood and a white jacket. They are outdoors with bare trees in the background.

PARTICIPATION

In the games that children play at school they gain practice in abilities that are valuable in a democratic society such as the ability to listen, follow established rules, make decisions and respect each other's opinions. When children and young people get older, the fact that they can train abilities that help them become active and responsible citizens is invaluable. These skills can involve learning how to formulate and analyze questions, participate in debates, make choices and develop strategies and solutions. The headmaster of the Global College Lars Benon expresses his thoughts about participation as follows:

– I have a very positive view of young people. We take them very seriously here at school. If you invite pupils to discuss important school issues, such as decisions that affect the whole school, the particular way we do things, the form examinations take, etc., when pupils become involved in the core activities of the school, then they become interested.



DEVELOPMENT AREAS

You are about to set off on a long journey.
What do you take along with you?

Money, a change of clothes, soap, toothbrush, camera ... and everything is packed into a bag. But if we are to travel a great distance, individually and collectively into a future filled with significant challenges, what do we need to take with us?

What qualities are essential for a school that has the ambition to equip individuals to cope with a future where basic needs must be met within the constraints of one planet? Is it enough to develop good teaching methods or serve vegetarian and organic food? In order to meet the challenges of the future we must link an overarching approach to the school in a lifelong learning experience. Here we present six development areas that all strengthen the role schools play in sustainable development.

A journey in six stages

Learning for sustainable development takes in all the processes that contribute to the development of skills, values and attitudes and that strengthen the individual, school and society in the quest for social justice, economic security, democracy and environmental sustainability, both now and in the future.

The world is continually evolving and learning in the field of sustainable development must keep up with the changes. Sustainable development should never just be an item ticked off on a list because you think you have finished with it. The process of learning for sustainable development is complex and in flux, and some schools find it difficult to handle. However, each school has the ability to cope and has probably already begun to integrate learning for sustainable development in their activities.

The form the endeavour to promote learning for sustainable development will take depends, of course, on the skills, motivation and driving force of the staff. The attitude and determination of the school administration is of the greatest importance when learning for sustainable development is integrated with the school's development work.

In developing the school's role in sustainable development, we have taken six development areas as starting points. Let us call them stages along the journey into the future. They show you where you are and the conditions obtaining for your continued work. The six development areas are presented here, along with lessons learned from our work with Schools on the Path to Sustainability:



1

Core values and participation

On what fundament does the work of the school rest? Each school has its own ideas on mission statements and values. In the process of learning for sustainable development the whole is also an important building block. A school consists not only of pedagogues and cannot function without recreation leaders, catering staff, caretakers, office staff, student assistants and others. A school where all these people are engaged in the work for sustainable development and this is evident in local work plans, is a school where the journey has begun, and where the route is signposted. You are on your way and nobody has been left behind!

Schools on the path to sustainability - lessons and guidelines:

- Create a vision that is democratically developed on the basis of policy documents and Education for Sustainable Development (ESD). Examples of elements in such a vision: Learning for life, the pupil's positive self-image, social skills, belief in the future and action competence
- Learning for sustainable development is clearly visible in the school's mission statement and values
- Everyone at the school feels involved in decisions that govern school activities

2

Management, structure and monitoring

What qualities make the leader of a football team successful? How do you meld individuals struggling towards a common goal into a team? That leaders are of great importance in team sports is obvious, and the same holds true for schools. In order to adopt a holistic approach and impart a sustained driving force to the school the school management must be unambiguous, supportive and long-term in its behaviour. There must be a motor that moves things forward, but also mechanisms for developing and monitoring, and management should collaborate with work teams and their representatives on a regular basis. It is essential that learning for sustainable development is a focused element of the school's normal work plans and development work and not a specific measure or something developed alongside other activities.

"Lettuce, cucumber and tomatoes were combined in a salad. Some children did not like this. We discussed it together. Now we have everything in separate bowls so that you can mix your own salad. There was much less wastage."

Eva Edman and
Christina Nystrom,
teachers at Hosjö School

Schools on the path to sustainability - lessons and guidelines:

- Organize teachers at the school in a way that facilitates interdisciplinary work
- Gather representatives from the management, teachers, other staff and pupils in a working group, which implements work with ESD in regular meetings
- All staff at the school: Teachers, catering staff, caretakers and others have received further training and are well versed in developmental issues



KRETS LOPPSB
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VI HAR INTE ÖPNAT
BURKEN SENDESS. OTROL
VA?!

3

Teaching and learning

We can all probably agree that school should arouse curiosity in pupils and make them want to find out more. But how do you accomplish this? How do you reach the children of today and inspire them to become engaged, enquiring and awake in them the desire to participate in building a sustainable society? You can promote learning for sustainable development by providing a stimulating learning environment that utilises a variety of pedagogical models, methods and strategies. In such an environment the focus should be on the pupils and their learning, and you should have a range of stimulating educational resources at your disposal. Learning for sustainable development is an overarching theme and line of attack. Therefore it is important that it has a natural place in the local curricula and work plans.

An important part of teaching and learning is to develop action competence so that pupils want to live as sustainable life as possible, know how to get it and to maintain this lifestyle in the future.

Schools on the Path to Sustainability: Lessons and guidelines

- Emphasise and work with current events in the immediate environment.
- Use Information and Communication Technologies (ICT) as natural teaching materials.
- Work thematically and across subjects at all year levels.
- Learning for sustainable development is clearly visible in the school's curricula and work plans and in all subjects.
- Let the extended classroom be a natural part of your activities and make use of nature and society in your teaching.
- Teachers offer teaching models which focus on different conflicts of interest, both local and global.

4

The pupil in focus

Should I buy organic and locally produced products? Should I take the train or travel by car? Which political party do I want to run the country? Both in school and in society in general pupils find themselves in situations where they have to make decisions. This is particularly true of such a wide area as sustainable development and the sustainable society. In order to be able to make informed and considered choices pupils should be given the opportunity to act things out in real-life situations. The school can offer stimulating and challenging methods, environments, and forums where pupils are given the opportunity to both shape and develop their learning and influence their own learning process. This will help them acquire the sort of knowledge that promotes a sustainable future.

Schools on the Path to Sustainability: Lessons and guidelines

- The pupils themselves are involved in the design and management of the playground.
- Pupils feel safe at school and can express their opinions freely.
- Work with the social learning environment is prioritised, both in class and during breaks.

5

Interaction with the community

How do we make a commitment to our common future? This is a difficult question to answer. 'Reality' for the pupils is not only found within the four walls of the school but exists outside in their environment and at home. Real meetings between people create understanding and insights into how the community outside the school works. This in turn creates opportunities for learning for sustainable development. By integrating various social functions with their schoolwork pupils prepare themselves for active citizenship and may also discover that it is possible to influence and change the things around them.

"There was chaos at the bus stop. Cars were speeding and jumping the lights. The pupil and environmental councils worked actively with this issue, sent letters to the municipality and contacted the press. The bus stop was rebuilt and afterwards things were much better."

Eva Edman and
Christina Nyström,
teachers at Hosjöskolan

Schools on the Path to Sustainability: Lessons and guidelines

- Pupils work closely with local businesses and stakeholders of various kinds
- Teachers facilitate contacts with the outside world, e.g., by using the Internet
- Pupils are given the opportunity show what they have learned through exhibitions, theatre productions
- open house days, and by taking part in social issues, etc
- Parents are invited to participate in school activities and to find out the what and the how of the issues the school is working with
- The school's experience of learning for sustainable development can be disseminated at local conferences where the staff from other schools in the municipality, politicians and officials are invited to attend.

6

School estate and resource management

A school is not just lessons and classrooms. Materials procurement, energy consumption, food purchases, repairs, etc., these are all part of working towards a sustainable future. The playground and the school surroundings are a stimulating environment where teachers and students can apply cross-disciplinary skills in projects that involve sustainable development issues. The outdoor pedagogy approach where you use as many of your senses as possible and experience things first hand is encouraged. The purchase of materials, the way in which the school premises are used in terms of sustainability and the school's energy consumption should have a given place in school life. In short, our objective is to reduce ecological footprints.

Schools on the Path to Sustainability: Lessons and guidelines

- The playground is used as an extended classroom and as part of the learning environment
- Pupils and staff are involved in decisions about rebuilding of the school, both indoors and outdoors
- Procurement and purchase of materials are made with a conscious environmental approach to reduce the school's ecological footprint
- We are dedicated to increasing the proportion of organic food and to reduce food waste.

These six areas of development are accompanied by a self-assessment tool which the school can use to evaluate its efforts. This tool is a great help in getting a picture of where each school or work team is currently in the process, and also identifies areas requiring improvement in the process of learning for sustainable development.

SCHOOL SELF-ASSESSMENT SHEET

This tool is a map that illustrates the school's development work.

Use it as a basis for discussion. Edit and fill in to fit your 'journey'.

		Sustainable development at the school – our development work Tick the appropriate box. Compare, motivate and reflect together with your colleagues. What can you do to achieve your goal?			Strategic objective
		Some have started, others are interested.	We have started work.	The issue has been integrated in decision and planning.	
1. CORE VALUES AND PARTICIPATION Our approach to learning and the school's role in sustainable development, where the school's development work includes all staff and activities.					Sustainable development has a central role in school activities. Staff, students and parents have a good understanding and participate in development work.
2. MANAGEMENT STRUCTURE AND MONITORING Organisation and implementation of long-term efforts to integrate learning for sustainable development and about evaluation, feedback and belief in the future.					Sustainable development is well established in school policy documents and work plans. We have implemented an excellent structure for developing and monitoring. We share our experiences and influence other educators and decision-makers.
3. TEACHING AND LEARNING Teaching promotes learning for sustainable development and is based on the following pillars: <ul style="list-style-type: none"> • The pupil in focus • Holistic approach • Democratic working methods • Reflection • Multiple perspectives • Lifelong learning 					Learning for sustainable development includes all teaching. We have developed educational models and created resources that promote ESD. All staff members are trained in ESD.
4. THE PUPIL IN FOCUS The school offers pupils a safe and tolerant social learning environment.					The school environment is creative and stimulating. Pupils feel they are safe and supported. Pupils are involved in real decision-making in connection with teaching and school development.
5. INTERACTION WITH THE COMMUNITY The school is part of local efforts for sustainable development. Parents, the community and the outside world are involved in teaching.					We use nature and society as arenas for teaching and learning. The school is an important player in the community where students are involved in development work.
6. SCHOOL PREMISES AND RESOURCE MANAGEMENT The school's ecological footprint. Purchasing, procurement and management of goods and materials. The school's outdoor environment.					The school's physical environment, indoors and outdoors and conditions for the procurement and use of raw materials and energy are examples of and part of the work with reduced ecological footprints.

Six pillars can be seen to shape teaching that promotes learning for sustainable development: the pupil in focus, holistic approach, democratic work methods, reflection, multiple perspectives and lifelong learning. These pillars can be seen as the creative basis of learning for sustainable development. Each pillar is in turn linked to new knowledge in a malleable structure. To maximise the development of teaching about our shared future, all six pillars should be included to form a solid foundation for teachers to stand on when they plan their lessons.

BUILDING VISIONS AT PORTHÄLLA SECONDARY SCHOOL

In September 2009 the model school group presented a mission statement and vision based on input from varied sources:

UNESCO, Partille school plan, LPF 94 (The 1994 curriculum for the non-compulsory school system in Sweden), the Global College and more. The working team commented the the work in progress and then followed a series of harmonisations at a workplace meeting and with a local liaison group, the school administration, headmasters, the union and pupils. Each and every word was discussed in detail for a year. In August 2010 the new mission statement and vision will begin to apply. It will be a focal point for ESD work in the whole school. The vision will enable new employees and visitors to immediately understand what we are working towards in Porthälla.

At Porthälla School we work to ensure that pupils develop:

Learning for life

I develop my will and desire to learn through a challenging and varied pedagogy where I can use my creativity, communicate, reason critically and solution-oriented, and influence school work both directly and comprehensibly.

A positive self-image

I am confident in myself as because I can be seen as an individual, I thrive and can grow based on my own merits.

Social skills

I have sympathy and respect for other people, different cultures, human rights, equality and tolerance.

Belief in the future

I am aware that I can influence my surroundings and lifestyle in a positive and sustainable direction.







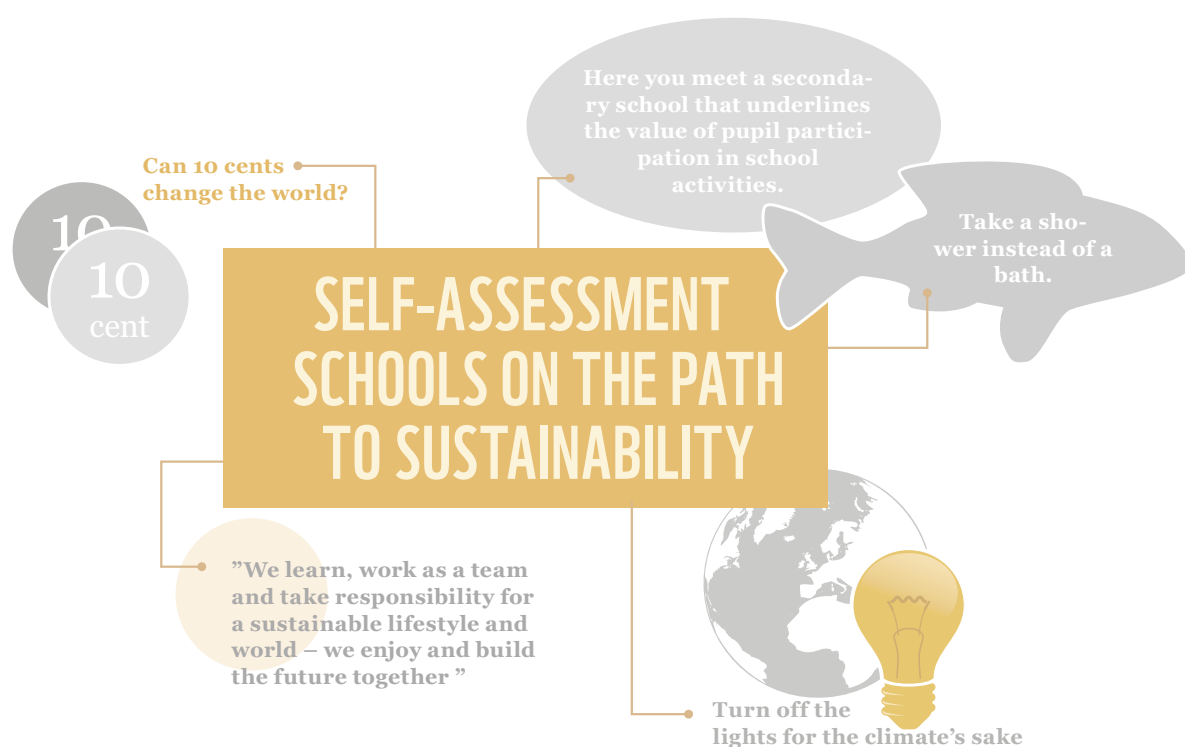
EXAMPLES OF MODEL SCHOOLS DEVELOPMENT WORK

What form does the lesson or work area take when one or more of the development areas described in the preceding chapter is addressed? On the following pages you will be able to come along on some of the “journeys” undertaken by the schools taking part in the Schools on the Path to Sustainability project.

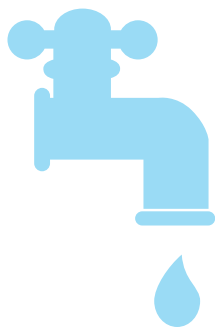
We present ten concrete examples where the development areas in the self-assessment sheet are a common green thread.

All schools have used the self-assessment tool and its targeted development areas repeatedly in order to visualize their own journey, and as a basis for debate that will enable them to move forward.

The examples are taken from various types of schools and from different forms. This is to illustrate for the reader that learning for sustainable development is not associated with a specific age group, but must be included in all teaching regardless of school size, location, teacher education, the age of the pupils, etc. In each instance it is possible to identify one, or usually several, areas for development.



But Arne, it says water...



"In a model where all the water in the entire world is represented by a single litre can plants, animals and human beings only use one single drop of water."

"But Arne, it says water". Quoted from the film SOS directed by Lasse Åberg. The lady of the family on a sailing holiday is asked to fill the tank with diesel for the first time and her irate husband shows her where to insert the fill hose. As she stands there she reads the sign beside the intake: "Water"

Water projects

This quote and the scene from the film helped teachers to formulate one of two goals for a water project that pupils in year 7 were working with, namely: "How can you make use of, protect and control water". The second objective in the project was to examine "the role of water in nature and society". The project was interdisciplinary and art, social science, Swedish and English teachers took part.

Eco-cycle - where is the water and how much is there

The project began by looking at how much water there is on earth, and how much of it is available to plants and animals. In a model where the all the water in the entire world is represented by a single litre; plants, animals and humans only use a single drop! This was an eye-opener for everyone, both teachers and pupils. A wet water relay race roused the pupils' interest and led to a lot of questions.

Human water consumption

Fresh water is a resource that we take from planet Earth. However the supply is limited, although it may be easy to forget this when you can get great tasting water by simply turning on a tap. If you reduce your water consumption can also shrink your ecological footprint.

Students and teachers brainstormed together and constructed a mindmap showing the different ways in which we use water. Then the pupils studied each individual family's water use. The results were compiled and presented in small groups. Pupils were asked to come up with suggestions on how to reduce their water consumption. The aim was to make pupils aware of how much water we actually use. The next step was to discover what they wanted to know more about – questions and ideas began to "bubble up"!

Water works and sewage plants

A visit to a water treatment plant was prepared by getting some water dirty and then cleaning it with the help of various filters and potato flour. Pupils also measured the pH, first by tasting it and then after each filtration. Half the class worked with water companies and the other half with sewage facilities. The aim was to learn more about how water reaches our taps and what happens to what we flush down the toilet. Pupils reported to each other in mixed groups and the "listening" group was given ten questions to answer.

The study visit

At last it was time for the pupils to visit the water treatment plant. With their own senses they were able to experience the process they until now only read about. Interesting smells and remarkable treatment results were new experiences!

On returning home the pupils tried dissolving toilet paper in a cup of water, and household paper in another. Teachers talked to the pupils what was taking place and tried to show the connection with what they had seen on the study visit.

To round things off the pupils asked people in the town if they drank bottled water and, if so, why. The interviews were compiled and the pupils manufactured posters advertising tap water. These were set up around the school in the hope that other pupils, staff and parents would take notice.

2,5%
OF ALL WATER ON
EARTH IS FRESH WA-
TER. MOST OF THIS
(87%) IS TRAPPED
SO THAT HUMANS DO
NOT HAVE ACCESS
TO IT



Comment

These two examples show how you can work with sustainability issues across a broad front. Pupil participation is evident in the fact that the pupils themselves take part in the process of building up the work area. They involve the community through visits, interviews, etc. The examples show how theory and practice are combined in order to obtain different perspectives. The pupils reflect over what is happening throughout, both individually and in groups. School subjects are interwoven throughout the entire process and you work in an interdisciplinary way with everything from Natural Sciences to Swedish.



Turning off the lights for the sake of the climate

A class of pupils in the final year of their secondary school education spent a lot of time working with Earth Hour. They based their efforts on the campaign of the same name, a worldwide and annual climate manifestation initiated by WWF.

This campaign urged people all over the world to switch off all electrical lighting between 20.30 and 21.30 on March 28, 2009. To turn off the lights for an hour for the sake of the climate! This was the starting point for extensive studies in geography for school year 9.

Theme work on energy

The pupils explored the world's energy needs and their impact on the environment and the impact the actions of each individual may have. The goal of this work was to inform other pupils at the school how important an active environmental program is.

They were wanted to raise issues related to our energy consumption – that we might need to think a little bit more how we use electricity, and what impact our consumption may have on the environment and Earth's climate.

The pupils researched the facts about climate change and the Earth Hour Campaign. Some pupils prepared adverts and information posters about the campaign and about what they thought would happen to the Earth if we do not think things over and start to act now.

These posters were put up in the school cafeteria and canteen to inform other pupils about the campaign. Other pupils chose to write an environmental blog where they talked about Earth Hour and global warming. They mixed facts with their own reflections on environmental and climate issues. A group of pupils set up a play that they had written themselves. It contained a presentation of facts, a sketch and a discussion round. This play was put on for the younger pupils at the school.

The Earth Hour project also included a theme day where all the pupils in their final year at the school treated sustainable development issues in a variety of different ways

"We might need to think a little bit more how we use electricity, and what impact our consumption may have on the environment and Earth's climate."



60 MINUTES

– FOR ON HOUR
PEOPLE ALL OVER
THE WORLD TURN
OFF THEIR LIGHTS
FOR THE SAKE OF THE
CLIMATE

– carrying out value exercises, playing fishing games, and presenting their thoughts and reflections on how the world might appear in 50 years time. At the end of the day the Albatross theatre group put on the show “Beyond the Sea”, which was about overfishing in Africa.

The Earth Hour play

Let’s get our teeth into some more advances work, a play about the importance of saving energy: Outside the classroom a group of excited children has gathered. What is going to happen? The door opens on a dark room and everybody sits down on chairs that are arranged as they would be in a theatre. Two pupils from year 9 welcome everyone to a show about Earth Hour. They start with a power point presentation about climate and the significance of Earth Hour. The message is clear: “Don’t have any of your electronic equipment on standby, switch to energy-saving lights, and turn off the lights when you leave the room.”

On the stage are Big Sister and Little Brother. Little brother is playing computer games. Big sister wants him to stop. Behind them is a clock showing 20:25.

-Can’t you see what the time is? There are only five minutes to go until Earth Hour, you must turn the computer off now, says the sister to her uninterested brother.

– All right, all right, I’ve just got to get to the next level, he answers.

Big Sister asks her brother if he knows what Earth Hour is and it turns out that he doesn’t. Then she asks the audience. They know! She explains to her younger brother what Earth Hour means – that it is a demonstration against climate change, but he is critical:

– Yes, he says, but it doesn’t mean much if I’m the only person to turn the lights out and shut my computer down.

– No, but everyone should take part, together we can accomplish a lot, his sister points out.

Reluctantly he shuts down the computer, turns off the lights and lights a candle. They play cards by candlelight, although the younger brother would rather see on TV.

After the play there is a discussion session with the audience.

The older pupils ask:

– Are you doing anything about climate change? What can you do?

– Run a green car, recycle trash, don’t litter, turn off the lights, shut down the computer, are some of the answers given by the younger pupils.

The older pupils ask:

– Are you going to join us and turn off the lights on Saturday?

– Yes, everyone answers in one voice!

Comment

Here the Teaching and Learning development area with its six pillars runs like a common thread through the entire work area. The pupils themselves take part in the planning, they work with a variety of different environmental and energy aspects, they reflect on things, both by themselves and together with younger pupils, and they highlight issues of ecological viability, social justice and economic sustainability.



Cloth bags for the future

A few years ago, students at a school sew cloth bags that they brought to Kimberley in South Africa.

At this point the school took part in a SIDA (Swedish International Development Cooperation Agency) project with two South African schools. When the school embarked on collaboration with the World Wild Fund for Nature the work of sewing cloth bags gathered momentum. The students themselves came to the conclusion that it was one of one of the things they could do to impact on resource consumption and reduce ecological footprints.

Ecological footprints

Man's ecological footprint can most easily be described as everything we human beings do that have an impact on our environment in any way, the food we eat, the clothes we wear, and so on. Everything we produce has an impact on the world's forests, oceans, rivers, soil, air, animals and plants. The more we produce and consume, the more we affect all living things around us – the greater the ecological footprint we make.

Sewing with heart and soul

The pupils had thus found a way to reduce ecological footprints: they would sew cloth bags of old curtains and lessen the number of plastic bags in circulation. All students learned to sew a bag in crafts lessons. Through a WWF scholarship the school could buy fabric and several sewing machines. They placed the sewing machines in school corridors and classrooms so that students could sit down and sew a bag when they got a spare moment and not just during crafts lessons.

They manufactured many bags that were sold at various locations in the community. They also entered into a partnership with the local store. Why carry home food in plastic bags when you can buy a reusable cloth bag instead? The school donated money left over from the sale of the bags to a chimpanzee project in Africa.

“Why carry home food in plastic bags when you can buy a reusable cloth bag instead?”



Comment

Students at this school work together with the community. By getting people to use cloth bags instead of plastic ones, they help in a practical and forceful way to reduce the ecological footprint of their town. They also contribute to biodiversity at a global level through their contribution to chimpanzees in Africa.

A Whole School Approach

“We learn, work together and take responsibility for a sustainable lifestyle and world, we thrive and build the future together.”

This vision was formulated by pupils at a F-9 school as a basis for their work. In their opinion safety and learning should be guiding principles in the work for sustainable development. So that this should not just be words on a piece of paper they have established clear working procedures and structures for planning, monitoring and evaluation.

Sustainable development is all about life, the life of future generations. Everyone working with young people must have a vision of the future. Schoolchildren have 50-80 years in front of them. So it's no surprise that we engage ourselves in issues that shape the future.

Jaak Kriisa, former
Headmaster at Norrsunda
school

Everyone must be on board

The goal is that all staff at the school will work with sustainable development. To this end a plan has been worked out for new employees, introducing them to the way in which the school works, and this covers sustainability issues as well. When staff members are recruited to the school they are made aware of the importance of sustainability. Training is offered to mainstream teachers who feel they need more “meat on the bone” if they are to work with sustainable development. In addition there are regular planning and competence development days where everyone has the opportunity to immerse themselves in sustainability issues.

Management and Work Plan

The school management has a clear role to play by being proactive, committed and unambiguous and showing appreciation of the important work carried out by the staff. An organization has been set up with development and accountability groups that dedicate an hour a month to planning, developing and advancing activities. All teachers at the school are members of one of these groups.

Each team at the school has its own work plan which shows how they intend to work with sustainable development. In addition the school has implemented a quality system with work plans that everyone is obliged to follow. There sustainable development has its own headline.

Each semester an academic year plan based on the work plan is drawn up, at Christmas time is allocated for monitoring and in the spring for an evaluation of the year's work. Major headlines from the school's vision are inserted: Learning, Well-being and Collaboration. These are then divided into in sub-headings such as Objectives and Planning, Processes and Communication, Result Description, Analysis, Interpretation and Evaluation and Measures for Development and Improvement. Based on this structure the school's work with sustainable future issues is conducted and evaluated.

Comment

In this example the most obvious development areas are Core Values and Participation and Management, Structure and Monitoring. The school places great emphasis on bringing all staff along on the journey by ensuring that training is arranged in areas where expertise is lacking. They have also a clear structure for monitoring and evaluating their work, making sure that nothing stops the process.



Pupil democracy in focus

Here you will meet a secondary school that emphasizes the value of pupil participation in school activities.

On the school website you can read following text addressed to students: "We would be happy to have you join with us in shaping the activities at the school! You will be able to exert a great deal of influence on your daily work routines and will be trained to take responsibility for your own schooling. Since autumn 2007, we have an organization that works through school conferences, general assemblies and pupil meetings.

"Pupils have been involved in choosing the food. This was taken up by the school conference. We now eat organically grown food and as much Fairtrade food as possible. The food we eat must be part of our drive for sustainable development. It is nutritious and vegetarian and all the pupils appreciate it a lot! Pupil at Global College."

Pupil at Global College

School Conferences

It is the beginning of a new academic year at the secondary school and it is time to select six pupil representatives to the so-called school conference. The pupils who are candidates have launched their campaigns. The conference is made up of these students, along with six staff representatives and the headmaster. Voting is direct and representatives are elected from all school years and the school's three academic programmes: The natural science programme with a health and environmental profile, the social science programme with a global profile and social science programme with an arts profile.

The staff representatives are elected at a staff meeting for a period of one year. Meetings are held once a month and the chair rotates between pupil representatives. The conference is a forum for discussion, team work and decision on issues that are important to everyone at the school.

Some issues discussed and decided upon by the school conference:

- Sustainable lunches, which resulted in the school now only serving vegetarian food
- No outdoor shoes in the school
- Work plans
- Codes of conduct
- Equality plan
- Hiring routines and interviews with new staff
- Reception of new students.

School assemblies

To give all pupils an opportunity to participate and exert influence assemblies open to everyone at the school are occasionally held. These meetings have an open agenda, which means that anyone can take anything they want up to discussion. Both large and small issues are addressed and some are referred back to the school conference that is able to decide upon the matter.

Pupil meetings are another forum in which pupils can take up matters of concern. Classes meet every two weeks and discuss issues that if necessary can then be passed on to a work team meeting.

"I want to make a difference, get involved and help develop the school in a hands-on fashion!"

Student representative

Comment

The Pupil in Focus and Pupil participation principles are here visualised in a concrete way. Pupils contribute and make decisions related to their everyday school life. They are able to practice making choices and taking real decisions. They also get, for example, an insight into school purchasing and procurement routines, and they are able to influence the school equality plan, etc.





Can ten cents change the world?

The school is located in the village centre. Work is carried out in teams and pupils are encouraged to work on their own and use the neighbourhood as an extended classroom.

For years the school has had a partnership with the manager of local general store franchise (ICA). The manager has visited the school and talked about his business. As an aid to home economics classes at school he gives a small sum per for each plastic bag (biodegradable) that he sells so that they can afford to buy organic produce. He also lets the school use his advertising flyer to communicate with people in the local community. He lets them use a quarter of the advertising space to distribute information about their environmental activities and in this way there is a channel for questionnaires, etc. The school also has a bulletin board at the entrance to the shop where information about school's wind turbine plant, food projects and consumption themes, etc., can be posted.

Comment

In this example the development area – Interaction with the Community – is in focus. Integrating the surrounding community with the school creates commitment and motivation and makes it easier for the pupils to understand local problems and concerns. An important part of learning for sustainable development is the opportunities it provides for students to act and exert influence – to be a force to be reckoned with in the community.



An energy effective school

During two weeks the school, which occupies multiple buildings and floors, undertook an energy theme, a collaborative project between different subjects.

“We encouraged the pupils to do something about state of A River Project (year 3 project). They went further than we had expected, for example they examined the possibility of erecting wind turbines and getting government loans for them and drew up plans for carrying out the project. Projects that are outside traditional school subjects are a good idea. Things become more realistic then – to deal with both what you have at the moment and what you are striving to achieve. It feels important to accomplish something which is viable in the long run.”

Teacher at the Polhem School

The pupils were expected to break down the total electricity consumption of the entire school during a single day. The aim was to chart the energy turnover of all daily operations, analyze the results and then suggest improvements.

First the students familiarised themselves with the methods and equipment to be used, and a suitable way to report their findings. Simple electrical energy meters were used to measure the energy consumption of various appliances.

The results were supplemented with interviews to find out the extent to which stand-by modes were utilised. The electricity consumption of lighting, computers, projectors, smartboards, printers and copiers was measured. Each group delivered a written report and a poster, collage or computer simulated image that was used to follow up the school's smart energy management routines.

Think if:

- The computers were switched off at night, the school would save 374 kWh per day!
- The lighting in corridors was turned off during daylight hours, the saving would be 70 kWh per day!

Proposed measures to reduce energy consumption

- Turn off lights and replace all light bulbs with low energy lighting
- Turn off TVs, videos and computers entirely and only put them on stand-by when you leave them unattended for shorter periods
- Invest in new household appliances that use less energy
- Take shorter showers, one minute in the shower is more than enough
- Write on the board instead of using an overhead projector

70
KWH PER DAY
COULD BE SAVED IF
LIGHTING IN
CORRIDORS WAS
TURNED OFF DURING
DAYLIGHT HOURS

Comment

In this example, the development areas – Pupils in focus and School Premises and Resource Management – are described. To be able to make informed and informed choices pupils should be given the opportunity to try things out in real-life situations. The school can offer stimulating and challenging methods, environments and forums where pupils will have the opportunity to both shape and develop their learning and influence their own schooling – and they will be able to acquire the skills that will enable them to do this in a manner that will lead to a sustainable future. Schools are not just lessons and classrooms. The purchase of materials, energy consumption, food purchases, repairs, etc., are all things that have to be dealt with when you are in the business of creating a sustainable future.



Fishing for eco-tips

In a small, mixed age group at a school they wanted to work with the Baltic Sea in an inspired and engaging way.

A trip to the archipelago

The class began work by going through with the teachers what they already knew about the Baltic. They went on a trip to the archipelago to get the feel of the sea, they watched a film that was about litter on the sea floor and they studied other factors that affect the sea in different ways.

Visit to a water treatment plant

To get another picture of what happens to the water, the class went on a field trip to a water treatment plant and the pupils were once again able to immerse themselves in the experience with all their senses. One of the goals we had was to look at the way society deals with water and wastewater. This we did by studying the way the municipality does things and by looking at the interest groups related to these and what they do.

The living sea

The pupils were also able to get close to life in the Baltic Sea. They did this by going out with shrimp nets and seeing what lived under the surface. Then it was time to tell others about what they had learnt. The class built a large fish tank that they erected in a shopping mall. Everyone who passed by was given the opportunity to fish. Before casting their lines adults were asked what category they belonged to: car or boat. A fish (a soft, chewy, fish-shaped candy) and an eco-tip with advice on how to improve the environment were attached to the hook. The eco-tip was matched to the angler's age and the category they had chosen. Some examples:

"If you are on a lake or by the sea take your rubbish home with you!"

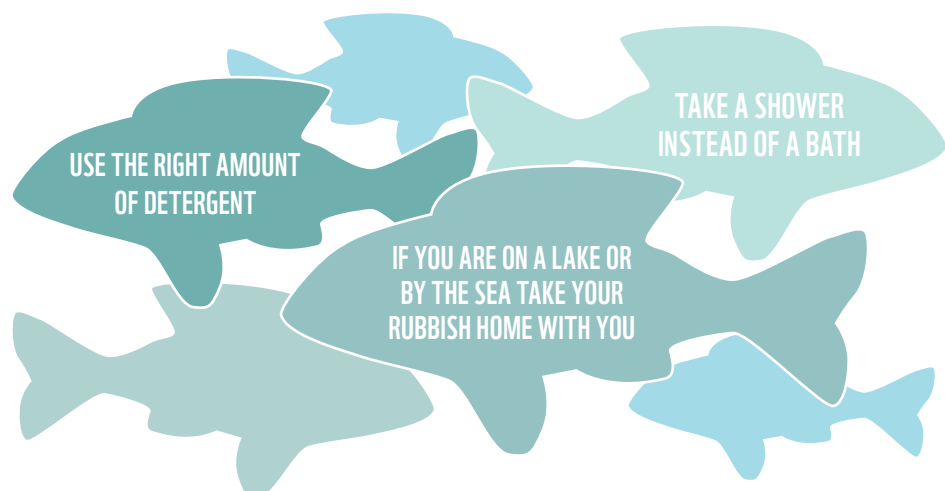
"Take a shower instead of a bath!"

"If you use nail varnish take the old bottle to a collection point!"

"Wash your car at a carwash that has a wastewater facility!"

All eco-tips were written on fish that the pupils themselves had designed.

All eco-tips were written on fish that the pupils themselves had designed.





162 000
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TO SWEDEN

“We’ve chosen to work with a sustainable development theme – do we live what we preach? After lengthy discussion, the answer is simply, No!”

You buy but who pays?

At a secondary school pupils were given the task of producing school magazines with the theme “Sustainable Development”.

The magazines were published on paper but also put up on the school website to reach a wider audience. A two-week interdisciplinary teamwork based on students’ own ideas on sustainability issues was raised.

Is there a day after tomorrow?

As an introduction, the youngsters went to see the film the “Day After Tomorrow”, which is based on the book “The Coming Global Super Storm” by Art Bell and Whitney Strieber. The book is about how the earth is suddenly hit by a number of violent tornados, snowstorms and floods, all as a result of climate change. After the film pupils and teachers discussed the ideas and feelings that the film had invoked.

Out in the community

As further inspiration the students visited the newspaper Göteborgsposten. There they were given a glimpse of how journalists work and how a newspaper is made. In addition they paid a visit to the Ekocentrum in Gothenburg to get ideas for different themes for school magazines. At Ekocentrum the guide told them about ecological footprints, energy, organic food, transport and organic clothing.

The pupils produce magazine

The pupils themselves chose the focus they wanted their magazine to have, and they chose themes such as fashion, child labour and consumption.

“We’ve chosen to work with a sustainable development theme – do we live what we preach? After lengthy discussion, the answer is simply, NO! ... We’ve learned a lot of things doing this project. Especially about clothes”

From the school magazine F.T.T Fashion Today Tomorrow

The objective of the theme work was “to create a magazine on a sustainable development theme, working in groups”. There were some restrictions as to content: the magazine should include a written editorial in which pupils were to take a stand on the current theme. Reporting must be investigative and fact-based, there should be interviews and the school equality plan was to be addressed. There were also special requirements for the journalists: they were to work in groups and to evaluate their own work. “Working in a group can be very demanding ... In the beginning, you’re excited and working out how good everything is going to be, then somewhere in the middle the going gets heavy and you start to get tired. You must force yourself to finish things ... but in spite of that it’s important to learn how to work in a group, it helps you later on in life”.

Comment

In this example pupils put together the magazine themselves, decide what areas to focus on, the issues to be addressed, and so on. This sort of approach requires dedication on the part of the pupils and a learning environment in which everyone is able to speak their minds and is comfortable saying what they think. The pupils themselves decide on the theme of the paper and this necessitates reflection and discussion. This cross-curricular example involves most of the six pillars in the Teaching and Learning development area, e.g., Multiple Perspectives and The Pupil in Focus.

Long term and sustainable development

How do you implement ESD? Start where the pupils hang out. In their everyday thoughts and preoccupations.

Teacher at Rudbecks Secondary School

At a secondary school in the west of Sweden, the staff members dedicate a lot of time for reflection and have had many discussions about the school's work on learning for sustainable development.

They think it is important that the project does not “run out” of material and have therefore examined what is needed if learning for sustainable development is to become a natural part of teaching.

Addressing injustice

The school exemplifies interdisciplinary work that targets issues of local, national and global equality. The pupils themselves identify rights and wrongs in their local environment. Then they continue to work on describing what they have identified and trying to find solutions to any injustice. The goal of this is to stimulate their own motivation and to show that they can make a difference and contribute to change.

Action plan

The school has hired a senior subject teacher to manage the school's ESD work. A central part of efforts to leverage a long-term and comprehensive approach is to provide a plan of action that describes the situation at the school with a brief recap – what has been done up to date, the current state of things and any areas for improvement that can be identified. This document is helpful when the staff plan the school's continued work. It is also of great importance that sustainable development work is presented and explained to new employees and occasional visitors.

Getting close up

If learning for sustainable development is to be assimilated and understood by everyone at the school and thus become an integral part of teaching you must grasp hold of the students, arouse their emotions and get really close to their feelings.

The teachers deliberately try to expose different dimensions in the teaching material and in this way pupils are given the opportunity to see more than one face of things – to see the both sides of one and the same coin. The students will be able to form their own opinions based on facts, values, etc. Newspaper articles are utilised frequently and this contributes to an understanding of current events, conflicts and issues. This way of working also means that different subjects are more easily integrated, which in turn promotes a holistic response to issues and conflicts, etc., introduced during lessons.

When we discuss sustainable development in class we're already doing a lot, but we don't have the proper terminology for it. We must establish what we are actually doing and how we can do more. How can we include it in our teaching but also live up to its message?

Emma Johansson, teacher in Swedish and English at Porthälla Secondary School

Comment

This school puts a great deal of emphasis on a holistic approach to learning for sustainable development.

By working across subjects and having constant discussions about the issues involved the objective is that ESD will become an integral part of the school culture and core values. By highlighting current affairs it is hoped that pupils will get involved and realise how they can change things – and that they really do have an important role to play in this respect.

FIVE OBJECTIVES FOR CLIMATE SMART ACTION WERE SET UP

You are what you eat

Teachers working in a team at the little 7-9 school reflected on what we in our role as consumers should take into consideration when we try to buy things in a climate-smart way.

They decided to dig deeper into the matter and initiate a project with a food theme in year 9. They set up five objectives:

Objective 1: To change the pupils' eating habits

Try to use only organic and locally produced foodstuffs in domestic science lessons.

Objective 2: To change pupils' purchasing decisions in the school cafeteria

Work together with the pupil council and catering staff to ensure that more organic products are sold in the cafeteria. Pupils will be offered an 'eco-option' in which all ingredients requirements are eco-labelled and / or locally grown. The eco-friendly product should be cheaper than other less wholesome products.

Objective 3: To change parents' food purchasing decisions

By making students aware of what they eat parents are encouraged to buy more green products than before.

Objective 4: To change the local populations' purchasing habits so they put more locally produced and eco labeled products in their shopping baskets.

Objective 5: To put pressure on local authorities

Implementation of the food theme

The project began with a theme day where the pupils brainstormed about the way they wanted to work with the project. The pupils were divided into groups according to their areas of interest. The areas the pupils chose to specialize in included for example, KRAV standard (Swedish eco-labelling standard) cultivation, transport, "eat your fill in the right way", trans fats and red and green listed fish.

The local ICA retailer was invited to participate in the project. He offered the school space on the shop flyer. In this way the pupils' thoughts on food could reach a larger audience and a questionnaire about the eating habits of local inhabitants could be sent out. The shopkeeper also donated a small sum per sold plastic carrier bag (biodegradable) to subsidize the purchase of organic ingredients for domestic science classes.

The school invited several different speakers. A greenhouse grower in the community talked about organic cultivation, ICA retailers talked about their work with organic and locally produced goods and a representative from WWF provided in-depth knowledge about ecological footprints.

The pupils discussed the products on sale in the cafeteria at a school assembly. During a summit the pupils discussed the things that were on sale at the cafeteria. Among other things ice cream and bottled water would be removed from the assortment, bread would be organic, sandwich fillings locally grown and honey would be locally produced. The cafeteria's new profile was presented to the parent advisory council who subsequently took the formal decision together with pupil representatives.

To encourage politicians to think and act in a climate smart way the pupils let them fill in the same questionnaire as local inhabitants.

In social science classes the pupils debated which question might be appropriate to send to the City Council meeting as an “issue of public concern”. The question decided upon by the pupils was:

“According to Local Agenda 21 recommendations one of the goals for the municipality of Norrtälje should be to increase the proportion of locally produced and organic food in school meals. Food prices are rising and the costs for school kitchens are on the increase without any additional resources having been allocated. Now it will perhaps be even more difficult for our school kitchens to increase the proportion of locally produced and organic food. Our question for you as politicians is: Do you still have the ambition to increase the proportion of locally produced and organic food in school meals and, if so, how do you intend to achieve this goal?”

The politicians remarked that they were pleased that school pupils were concerned about the issue but that at the present time there was no possibility of increasing funding for school kitchens. However the question would be reconsidered when it became time for new budget negotiations. Perhaps the requirements for municipal contracts could be amended so that it would become possible for local growers to compete with other players on the market.

Our efforts to get going on the path to sustainability have had a marked effect on all of us at the school. The cleaning staff, caretakers and our obliging catering staff kitchen ladies have joined in. When the kids say: “We want to drink eco-labelled milk”, the kitchen ladies reply “Okay”, and the children feel important.

Mona Elfsberg, teacher
at Hosjö School.



Comment

This example shows the value of the development areas – Pupils in Focus and Interaction with the Community. An emphasis is placed on the pupils’ motivation and skills. By giving them the opportunity to “make decisions that really matter” based on real knowledge their action competence is extended. When pupils are trained to participate in community building in real-life situations against a wide range of democratic backgrounds they gain a belief in the future.

THE EXTENDED CLASSROOM

An important aspect of learning for sustainable development is contact with nature and the surrounding community. Here there are opportunities to link issues of ecological sustainability to social justice and economic viability. Getting out of the classroom puts the children's own questions and first-hand experiences in the centre. Mona Elfsberg, class teacher at Hosjö School, concludes: "We do a lot of teaching outside in the open air. It's important that children see and appreciate the things around them – that they don't just long to be somewhere else but realise that you live here and now and do what you can."







EVERY HUMAN HAS THE RIGHT TO A DIGNIFIED LIFE

We asked Inger Björneloo, a university lecturer at the Department of Pedagogical, Curricular and Professional Studies at the University of Gothenburg, to reflect on the Schools on the Path to Sustainability initiative. Inger is deeply rooted in the soil of Halland County on the west coast of Sweden, and began her life as a teacher in elementary school.

– I see sustainable development and all that it can contain as the foundation of both education and training.

“A good life for everyone – everywhere and always.”

A good life for everyone – everywhere and always. You could perhaps define sustainable development so simply and so complicatedly. Over the years hundreds of explanations of sustainable development have seen the light of day. The term was originally defined by a United Nations Commission in 1987:

Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED; 1987, 1988).

Every day there is something in the newspapers about (un) sustainable development in the world. Sometimes the doomsday headlines have an almost apocalyptic tone. Both on and between the lines readers are called upon to change and improve things, but it is difficult to understand what it is all about and what you can actually do.

Many challenges

Despite all international agreements and initiatives on the quality of life, human rights, peace and people's access to education, we are only slowly approaching the targets we have set up. The world's rich countries have not kept their promises, the number of people in the world living in absolute poverty is increasing, the prices of goods are not commensurate with conservation values and the number of species in the world decreases day by day. However, Jäger (2007) observes that the international protocol signed in Montreal resulted in the stopping of the destruction of the ozone layer in the stratosphere, thousands of small projects around the world have started and are successfully developing insights into sustainability, researchers have helped us better understand complex relationships in the world, with the Kyoto Protocol the first steps toward climate change were taken and many countries are striving sustainable development in ways big and small.

“Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs.”

There were great expectations for the contribution education could make to sustainable development expressed in policy documents from UNESCO. In a similar way Swedish policy documents, for both primary and secondary education, expressed a clear mandate and an expectation that education was to contribute to sustainable development. Almers (2009) poses the rhetorical question if these are reasonable expectations to place on schools.

Learning for Sustainable Development

Education can be seen as one of the keys to sustainable development and learning is a prerequisite if humanity is to meet the challenges facing the world. Ever since 1987 when the UN Commission defined what sustainable development is educators worldwide have worked on objectives and means to contribute to this development.

Following the 1992 UN conference in Rio, Agenda 21 gave us a common platform – an agenda for the 21st century. An interesting component of Agenda 21, and one that contributed to the great impact it had, is all the interest groups that shouldered the responsibility for education at local, regional and national levels. The teaching focused primarily on ecological issues and environmental education was added to the agenda in all Swedish schools.

At the Learning conference in Gothenburg 2004 teaching was extended to include other aspects of sustainable development such as democracy and action competence.

Teachers' thoughts on Learning for Sustainable Development

In a research paper from 2007 I gave examples of how teachers express themselves on teaching and learning for sustainable development. Learning is seen as a lifelong process that includes both schooling and development. Only a small part of all the learning people are subject to from birth to death takes place in school. Learning means participating in social activities, sharing information with others and practicing skills in a meaningful context. This can be regarded as a socio-cultural perspective on education. Learning for sustainable development can also be seen as an approach that should permeate all teaching. It can help the teacher to select materials and methods while students acquire an understanding of social, economic and ecological aspects of the community.

“Sustainable development is about shared responsibility and solidarity between generations, between women and men and between ethnic groups and countries. Today the countries of the world are intertwined and interdependent as never before.”

www.skolverket.se

This study of teachers' work on sustainable development can be grouped into five thematic fields. The purpose of the survey was to identify a content, a WHAT, that teachers feel that students must master, know and understand in order that they themselves be able to contribute to sustainable development in the world.

The matter contained these fields corresponds to the substance of this “what” and they are entitled Wholeness and Context, Participation and responsibility, Empathy and Understanding, Self-Esteem and Communication skills and Ability to Learn. Here is a brief summary of each theme.

Five key areas

1

Wholeness and Context

The world is one and everything is connected. This means that pupils must confront whole processes and complex issues in their schooling and teachers feel that they need to acquire the ability to think for themselves on these issues. The basis for this endeavour can be real events at the local or global level, or it can be their own field trips or something they do at school. Pupils should learn to compare their own living conditions with living conditions in other environments and other times. Here the curricula for history, religion and geography play a role. Students should also develop an understanding of the ecological background and provide examples of life cycles and ecosystems. Therefore, studies in forestry and land are important elements in teaching and they also draw attention to human impact on nature.

2

Participation and Responsibility

Pupils should want, have the courage and be able to participate actively in society. If communities are to develop sustainably citizens must care about what happens. Children and young people should understand that they can influence many different issues and that the choices they make can have consequences. Taking responsibility for their choices requires some basic knowledge and also a willingness to understand current problems. It is not self-evident that they feel that they have any part in decisions that have already been taken or that they think there is any point thinking about their own choices.

3

Empathy and Understanding

Pupils' ability to identify with others and perceive life as others do is central to learning for sustainable development. This includes a willingness to develop good relationships and empathy for people both nearby and far away. Ellen Almers, a researcher at Jönköping University, calls this morality at a distance and states that it refers to moral responsibility in action, both between generations and globally and that it is characterized by the consequences of actions that affect or benefit someone you do not have direct relationship with.

4

Self-esteem and communication skills

If children and young people are to develop and learn, they must have a certain amount of confidence in their own abilities. Verbal assurance can be essential for self-esteem and therefore it is important that the start they get in reading and writing in preschool is unflurried, sheltered and inspiring. Pupils should be able to participate in discourse in which they express themselves and learn to understand how other people think. They should be able to read, write, and critically reflect on the message contained in text and images. A good self-esteem also means a mature physical self-confidence that can be grounded in an active and healthy lifestyle.

5

Ability to learn

Children and young people should be able to use a variety of tools and methods if they are to gain an insight into their own potential for learning and developing. It is easier for pupils to become aware of their ability to learn if the content, the purpose behind assignments and the methods employed can be understood by them. In a school where there are good relationships between pupils, parents and school staff, the prospects are good for children and young people to develop joy in work and an awareness of why it is important to learn.

“Pre-schools, schools and adult education have a clear mandate to contribute to a socially, economically and ecologically sustainable development. The assignment is formulated in the national governing documents as school law, curriculum and curricula.”

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SUMMARY IN THREE FIELDS

In the following chapter Inger Björneloo summarises her reflections on the Schools on the Path to Sustainability project.

During a period of three years the model schools worked together with WWF in the Schools on the Path to Sustainability project. When I study the efforts of these schools reflected in mission statements and visions, plans, concrete results, interviews, etc., I am able to identify three distinct fields: Ecological Footprints, Reflection and Action Competence.

The important concept of democracy can be found throughout these three fields as teaching that targets action competence for sustainable development has democracy built into its objectives, means and methods. Support for democracy is inherent in an understanding of the concepts of ecological footprint and biodiversity. And democratic values are fundamental to the very concept of Reflection.

In line with the guiding principles laid down in all policy documents the pupils should be seen as being involved in shaping the content and form of the education programme and in this way they will also be able to practice taking part in democratic processes. It is not possible to take democracy out of the equation anywhere because then the rest will fall apart, this is rather like lifting the joists out of the roof and describing them separately while the roof collapses.



1

First field: Ecological footprints

Are you supposed to teach "that which is right and good"?

Teachers and pupils at model schools have lots of ideas about how lessons should be arranged to help pupils understand the meaning of the ecological footprint concept. They often suggest some kind of theme work where the pupils themselves attempt to root out underlying facts and subsequently tie them together and discuss their conclusions. Teachers are in a dilemma here as they might be tempted to teach "what is right and good", but the main task of the teacher is arrange things so that pupils are able in a democratic way to define sustainable development and ecological footprints for themselves, and the significance these concepts have for them. A variety of different views come to the surface when these issues are debated and you are able to reach a more nuanced opinion when you weigh your own position against those of others. There is no given correct answer as to what is best and therefore everyone should take part in the discussion about what is best for the world and suitable for them personally. They practice their ability to interpret statistical data and look for explanations, interpreting and compiling the results in such a way that others can get a picture of both problems and solutions. Here, students also practice their ability to reason and defend their opinions. Lundegård (2007) writes that the teacher has a vital role in emphasising the reflective discourse process and making it visible to the pupils.

Toys from China

Consumption and production are examples of themes utilised by model schools in an attempt to understand what ecological footprints are. When working with these themes pupils are quite often asked to perform life-cycle analyses. This method is a somewhat complicated, but pupils can take it as far as they can, investigating all the costs associated with a product and the impact it has through all the stages of its life from raw material to manufacture, transport, use, and final disposal. They can consider how resources can be used more wisely from start to finish. One assignment might be to find out how certain goods can be sold so cheaply – why, for example, do toys from China cost far less than similar toys made in Sweden? What is fair trade certification? Do we need so many things? What can somebody else use? What do the pupils think about reuse and recycling and how these can be tied to ecological footprints?

Food and Climate

Another theme addressed by all age groups is the effect on climate and health of the food we eat. Here the model schools show different ways of collaborating across disciplinary boundaries and age groups. Hanging a map of the world on the wall in the classroom and thinking about how far food travels before it reaches our tables gives pupils an understanding of where countries are located in relation to each other. It also means that pupils are encouraged to look for country of origin labels when they buy things. But even this is not uncomplicated – maybe the footprint will be smaller if we buy ripe tomatoes from Spain rather than greenhouse ones grown in Sweden, despite the transport. Nothing is simple and straightforward and part of our knowledge about ecological footprints is an awareness of that fact.

Ice-cream impacts rainforest

Other questions taken up by model schools include: What do the pupils know about overfishing? What are the consequences of breeding tiger shrimps? What toxins are introduced into the environment and what are the consequences? How are some natural environments in the world, such as the rainforests in Malaysia and Indonesia, affected because we daily consume margarine, ice-cream, crackers and potato chips that contain palm oil? Oil palm plantations have tripled the over last 30 years and



Hosjö School reduces its ecological footprint



not many are familiar with the relationship between biodiversity and palm oil in our food. Even fewer take responsibility for the consequences. According to WWF each Swede, “borrows” 11 square meters of land to satisfy their consumption of palm oil.

Biodiversity

The concept of biological diversity within a particular area is closely related to the ecological footprint. Diversity is necessary. Human beings are nourished by nature and its products and services that we refine. Consider how things would look if decomposition processes were to cease and our waste was just left lying around. If all birds, bumblebees and butterflies disappeared – no birdsong in the spring, no wild flowers in the meadows to pick.

In one way or another many teachers point out that children and young people need to develop a feeling for the environment and for nature and social phenomena their immediate vicinity. Leaving the classroom and entering the real world is a part of this. Outside the classroom they encounter whole processes that cannot be broken up under individual school subjects. Here, instead, they are given an opportunity to confront complex experiences and encounters where thoughts, feelings and impressions can interact. This sort of tuition must be planned and processed – the pupils themselves must be aware of the underlying purpose and what must be done.

Stepping out into the local environment

An understanding of nature also includes a feeling for people – everything is connected and we help pupils by letting them see how things are linked together.

Using a variety of concrete starting points, pupils can learn to see connections in things close to them and eventually in an increasingly wider perspective. Teaching is based on the current situation and things close at hand.

1) <http://www.wwf.se/v/ekologiska-fotavtryck/1127730-palmolja-ett-hot-mot-regnskogen-och-orangutanen>

2) <http://www.naturvardsverket.se/sv/Arbete-med-naturvard/Detta-ar-naturvard/Biologisk-mangfald/Vad-innebar-biologisk-mangfald/>

Weighty economic sectors such as agriculture, forestry and fishing sector, are directly dependent on ecosystems and their production. Genetic variation is valuable as well – as is the number of compounds produced in the organisms. Despite advanced technology, the food we eat still comes from the plant and animal kingdoms.

Starting early in preschool

The building up of an understanding of concepts such as biodiversity and ecological footprint starts with the youngest children in preschool. Several examples from preschools and schools are about outdoor pedagogy, playgrounds and school forests. Here children and staff follow plants as they grow, taking care of them, documenting them asking questions, and learning the species and habitat. All school subjects are involved and senses are sharpened and necessary in the learning process. Mathematics, for example, is used to calculate area, seed and soil prices, the sale of vegetables and seedlings. The pupils develop language proficiency by writing about what they do, any questions they may have and what they plan to do. They carry out “research”, as it were, because they deepen the knowledge they have of an insect they come across, and learn to find it in an encyclopaedia or on the Internet. They write poems or stories about a range of different phenomena. They learn to take responsibility in the care of the forest and garden they have been assigned and they learn how to work together. In democratic decision making processes they decide how to proceed. Maybe they need the help of a professional when they encounter problems in the forest or garden they cannot solve themselves?

Basing teaching on pupils' ideas, thoughts and interests

In the documentation produced by one model school, you can read about how to work with a school garden and a school forest:

We learn, collaborate and shoulder the responsibility for a sustainable lifestyle and world. We thrive and prosper and build the future together.

Vision för Tomtebogårds förskola och skola

School garden

“At one side of the schoolyard there was a green space that had previously been empty land. This was utilised as a school garden. The aim of the school garden was to teach the children (and their parents) better eating habits, give them an understanding of how seeds grow, knowledge of cycles in nature and how to tend the earth. Different groups of children at the school prepared the soil before it was time for sowing and planting in late May. The children and their teachers had pre-cultivated lots of the plants indoors before they were transferred to outdoor plots. In July, when the school was closed for the holidays, the plots were tended by volunteer parents and children. The first year the plants grew very well. When the children came back in August there were fully-grown carrots, broccoli, salad, kale, dill, radishes and many other things for them to taste.”

When we went out into the wood, I asked:

- *Who decides which path we should take, the straight or crooked? They thought I was the one who would decide.*
- *Which path would you choose if you decided? I asked.*
- *The crooked path, said the children.*

School forests

“The municipality of Umeå and the forest association that looked after municipal forests gave the school an area of about 1 hectare (10000 sq. Metres) to use for activities in connection with planned school lessons. The agreement meant that the school above and beyond the right of public access (freedom to roam) was entitled for teaching purposes to break off twigs and branches, put up bird feeders and build windbreaks. They built an entrance to the woods with a ramp so that it would be accessible for students with disabilities and preschool children in pushchairs. Over the years the forest has been used regularly, especially in the early autumn and late spring, but groups have also used the forest during the winter for skiing. They have built a bridge, woodshed, a small tower, barbecue areas, a team building track and nature trail with text and images. The forest has become an important addition to teaching about nature, the environment and sustainable development. Students draw maps of their forest, they set up camp sites, they play, climb and learn to keep their balance, they cook in the woods and they try using tools such as knives, axes and saws.”



The school forest and the school garden are examples of teaching strategies based on children's and young people's participation and conscientiousness, on creativity and the pleasure of work, on action competence and environmental awareness. A rewarding way for teachers to go about things is for them to analyze how educational activities can support creativity, imagination and the creation of meaning for the children, at the same time as they map out the path towards the objectives the preschool and the school have set up. Teaching based on children's ideas, thoughts and interests has the potential to lead children to become involved in issues related to sustainable development.



2

Second field: Reflection as a teaching tool

Knowledge development is dependent on whether pupils are able to see connections. Schools should provide students with the opportunity to get both overview and context, which requires special attention in schools formed around courses. Students should be given the chance to reflect over their experiences and apply their skills (Lpf 94 p.6).

Write!

Many educators and researchers stress that if you want pupils to study and learn in a more active way, there is probably no more powerful tool than letting them write extensively – regardless of subject matter. Anyone who has tried to express their thoughts about anything in writing knows how much the very act of writing activates their own thought processes, says Sandström Madsén (1996). If I don't understand how something works, I probably can't explain it to anyone else. Because the written language places greater demands on clarity and precision than the spoken language, the writer must more aware of his own thoughts.

The importance of discourse

Discourse is also very important to learning and understanding. Discussions with their peers in a small and safe group where they are given the opportunity to express themselves and examine their own thoughts and grasp of matters, is critical for a lot of pupils if they are to gain lasting results from their studies. First expressing what you want to say in your own words can be an important step on the way to formulating yourself on paper. The crux of the matter is to actively use your own language, your own words, when you penetrate new material. When, with the help of language, you are able to integrate the new with that which you already know, then you take possession of the new. All the pieces fall into place and this may also set the stage for more long term effects.

If, at the beginning of a series of lessons, pupils are asked to write down what they think should be studied and why, the teacher can relate to and, if necessary, challenge pre-conceived notions that might otherwise obstruct understanding. Writing can be used as a diagnostic tool and not as a test of knowledge. Once students become accustomed to this, they can apply themselves more to describing how they think and also take up things they are unfamiliar with. This gives the teacher a good foundation for teaching that reaches all pupils.

Knowledge tests

Knowledge tests when a work session is completed may also be of varying kinds. Instead of long complicated questions that tend to lead to short, easily corrected answers, they may consist of short questions that require long, reflective reasoning in response. It is common practice to set fully formulated tasks that pupils solve with the help of books or the Internet. Here you have to find the "right answer". Pupils are not generally capable of processing the information they acquire in such a way that it turns into knowledge and pupils who instead have become accustomed to thinking actively, independently and critically and in their own words formulating what they understand are much more likely to learn something along the way as well, writes Jörgel Löfström (2005). The ability to summarise in their own words and explain what lies behind the lesson is probably the best measure of how much they really have understood. This may then be related to targets and grades.

How do we process the things we experience?

A guiding principle of education could be formulated as follows: How do I give pupils ample opportunity to process their experiences and how do I support them in creating

investigating and incisive dialogues, ensuring that both orally and in written texts they stay focussed and within context?

So this really means that the core issues of reading and writing are not technical. Of course it is good thing at school to learn all about writing preparation, typing work, character description, description of the setting, dialogue and how plots are developed. But the basic issues of teaching writing are not these. The basic questions are much more human. They concern such things as self-awareness, freedom, self-confidence, knowledge and a broad-minded understanding of human life.

We think and we act

Learning is about acquiring knowledge and understanding in order to make our own reality intelligible. You might say that learning is brought about when we reconsider our actions by reflecting on our experiences. It may be as a result of an interaction between what we think and what we do. In everyday work our thoughts and actions are integrated. We think while we act and act while we think. If we want get away from routine everyday conduct and our own ingrained thought patterns, we need to put some kind of distance to them – that is say, thought and action must be separated. To acquire knowledge in a deeper sense we must understand why we think as we do and why we act in a particular way. To reflect on your own thinking may mean both paying attention to what and how you think. Distance may be brought about by discourse with others, by writing and reflecting, and by reading and pondering what others have concluded in their research.

Testing concepts in different context

A teacher's day often focuses on documents. Educational thinking has been dominated by questions of a "how" nature about the methods most appropriate for students to learn: How shall we do such and such, how shall we teach so that pupils will learn and develop in a proper way? The question of what to teach and what pupils are to be developed into has more or less been taken for granted. It can be seen as self-evident that pupils should master the four basic arithmetic operations, reading and writing, understand important aspects of a story or be able to explain the favourable conditions required for a plant to grow. It is also quite obvious what is meant by saying that pupils ought to develop into worthy, harmonious and knowledgeable citizens.

Dressed in saris etc., pupils at the Global School give an account of their trip to India.





But there may be a problem if the teacher takes the objectives and contents of their teaching for granted – something that is obvious and not necessary to discuss or reflect upon. If an individual is to learn something the content being focussed upon must be given particular meaning for him or her. This can be achieved if the content or concepts can be examined under different circumstances and still be recognised, although the situations where they are encountered may vary. How can the import of sustainable development be varied and made both understandable and urgent for pupils of all ages and for teachers of all subjects? Unfortunately there is no given way of doing this, but the approach indicates an openness to change in teachers.

The teachers open approach

The teachers' openness to change and development will help them turn everyday situations into reflected experience. This open approach may help teachers to dare see and challenge their own thinking. Openness is similar to the pedagogical insight grounded in the tacit and intuitive knowledge a teacher may have acquired through experience or study. That which is implicit or intuitive in our knowledge and skills we learn in a subtle way by adapting to different situations. Teachers find themselves in a constant tug of war between working in a society that is characterized by complex questions about the future and simultaneously functioning as part of an organization with strong structures and few opportunities for flexible solutions (Folkesson, 2004).

"The school's environmental efforts has had an effect on the family at home: We have bought a green car and installed geothermal heating, we buy ecological products and my Dad has started to commute collectively ... We shower for shorter time and have taken away the bathtub, Grandpa uses public transport, Dad rides a bicycle ..."

Pupil at Global College

Constructing meaning from scepticism

Human meaning is based on scepticism. It may be about anything we have previously taken for granted, or been in the habit of doing, and which has suddenly been questioned. For example, we have for some time regarded the sorting of waste as important if not essential and have deposited newspapers in one container and cardboard packaging in another. All of a sudden we read in a newspaper that this is completely unnecessary because everything is mixed together a before being burnt anyway, and in addition transportation costs so much that any benefit to the environment is dissipated in truck exhaust fumes. This turns into a conflict between what I want to achieve (a better environment through recycling) and what is printed in the newspaper. The situation easily gives rise to frustration – Who can I trust? What is true? Is there any truth? Is there any point in sorting newspapers and packaging in separate containers anyway? What should I do now? I can choose to question what I have heard earlier about recycling and form my own opinion. Or do I choose not to believe what I read in the newspaper and continue to sort my waste paper? Perhaps I try to find out more or ask other pupils what they think is best ...

Pupils discover real problems

When pupils discuss sustainable development, it is often because they have noticed problems in the world around them. They are not primarily interested in identifying or immersing themselves in objective (scientific) facts in the problem area. Pupils are more interested in identifying authentic problems that can be evaluated in different ways. They dwell upon conflicts and situations in which people are able to make choices. The discourse of young people in relation to sustainable development issues is therefore first and foremost about the identifying the problems and interpersonal conflicts these revolve around. When they have agreed upon the conflicts and problems that may be worth discussing further, then perhaps it will become interesting to get hold of more facts on the subject to consolidate or reject the positions they have held previously (Lundegård, 2004).

Teaching yourself to see alternative visions for the future

Pupils need to learn to think critically about their place in the world and consider what sustainability means to them and their society. This is expressed as follows in the Agenda 21 commitment from the Swedish Department of Education.

3) Agenda 21 för utbildning för hållbar utveckling i Östersjöområdet – Baltic 21 Education, Utbildningsdepartementet 2002, s. 5.

The document further states that pupils need to teach themselves to see alternative visions for the future, discuss alternative choices and their consequences. These are skills that are the foundation of good citizenship and make learning for sustainability part of the process of creating a well-informed, aware and active population. In this way, learning for sustainability contributes to teaching for democracy and peace.

3

Third field: Action competence

Doctor of Philosophy Ellen Almers defines action competence for sustainable development in her thesis from 2009. It is based on action competence as an educational ideal proposed by the Danish researchers Jensen and Schnack (1997). This approach leverages responsible environmental and social development. Here action competence is described as an ability grounded in critical thinking to become involved as an individual, in the company of others, in responsible actions and counteractions for a more humane and compassionate world, notwithstanding an incomplete knowledge of the facts. (Almers, 2009). Jensen and Schnack say that we cannot expect to know everything – we cannot count on acquiring exhaustive and definitive knowledge. Sustainable development cannot be pre-defined at the action level, because it is a moving target and the uncertainty factor is considerable. To act when you have an incomplete command of the facts, while simultaneously being prepared to reconsider your actions and decisions as the state of your knowledge changes, is therefore essential.

Almers concludes that action competence can be seen as:

- The will, courage and desire to act for sustainable development
- The ability to act from a well-considered, albeit incomplete knowledge base
- Having knowledge and actively searching for knowledge connected with the target issue – unsustainable effects and impacts on humans and ecosystems
- Having knowledge of the structural causes of untenable conditions
- Having knowledge of the possibility of influencing events and the ability to carry this out
- Seeking solutions and a critical approach to the solutions that have been proposed
- Reflective standpoint on different action alternatives

(Almers, 2009. P.35)

These are aspects that fully follow the democratic educational ideal that emerges from all policy documents for Swedish primary and secondary schools. Writing can be used as a diagnostic tool and not as a test of knowledge. Once students become accustomed to this, they can apply themselves more to describing how they think and also take up things they are unfamiliar with. This gives the teacher a good foundation for teaching that reaches all pupils.

Tensions inherent in the concept of action competence

However, there are tensions in the concept of action competence that cannot be resolved conclusively. They are inherent in the concept's dynamism and usefulness, but can also lead to blockages. One of the tensions within the concept of action competence arises between the requirement for a critical and distanced approach on the one hand, and the need for emotionally involved conduct on the other. Another tension touched upon by Almers may arise between the demand for a free individual outlook and the demand that responsible conduct should extend beyond immediate self-interest.



"It is not in itself sufficient that education imparts knowledge of fundamental democratic values. It must also be carried out using democratic working methods and develop the pupils' ability and willingness to take personal responsibility and participate actively in civic life. Opportunities for pupils to exercise influence over their learning and take responsibility for their studies assumes that the school clarifies the goals of education, its contents and working forms, as well as the rights and obligations that pupils have."

(Lpf. 94 s.4)

Taking objective and critical responsibility

The specific content of an action cannot be determined normatively by somebody else in advance. This dilemma is a challenge for the school to tackle. However, education should lead to objective and critical responsibility in relation to problems and to taking action in the light of your conclusions. It is one of challenges facing an education that wants to contribute to the development of a democratic and sustainable society (Almers, 2009).

Learner interactive teaching

A teacher from a model school talks about the way she teaches physics:

"We have worked learner interactively during a part of the physics lessons. This has meant the pupils have given the lessons and I've been an observer. The idea behind this is to vary teaching methods, getting the pupils more involved and because they can put different kinds of questions to each other. The pupils practice focussing on what they need to learn, they train themselves to deliver a message and they are compelled to deal with any issues that may arise. The result has been increased participation and another understanding of what teaching is all about."

If pupils are to understand what action competence means they must develop:

- A positive self image
- Social skills
- A realisation that they are learning for life
- Confidence in the future

This pupil profile is a useful guide for pupils, teachers, parents and the school management when work for the term is being planned.

Pupils should also be able to orient themselves in a complex reality where there is a vast flow of information and a rapid rate of change. The ability to acquire and use new knowledge and skills is important. Pupils must train themselves to think critically, to review facts and circumstances and realize the consequences of different alternatives. The school should provide pupils with the opportunity to obtain an overview and context (Lpf, 1994).

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WORKING WITH VISIONS

Working with mission statements and visions is an important part of learning for sustainable development. It's difficult to predict what the future will look like around the next bend in the road. But we can dream and fantasize – get out a compass and take a bearing along the most sustainable path we can imagine. Here are some important questions put in our rucksacks: What skills and knowledge do we need to develop? How can we prepare for an unknown future with what we know today? How can those of us who work with children and young people visualize what this future might look like?



KEEPING SOUTH AFRICA ALIVE IN FALUN

For 10 years Hosjö School in Falun has collaborated with two school classes in South Africa. They keep in touch via SMS, Facebook, and even snail mail. In conjunction with Earth Hour, March 2010, the class in Hosjö posted letters and drawings in which they described what you can do so that you don't impact the environment in a negative way. It was exciting for the children to see that countries in different parts of the world think the same way and feel connected – together we are stronger! A head teacher from South Africa wrote:

– I love to work with you in Sweden since everything we do with you turns into gold!

One of the African schools lacks resources and therefore finds it difficult to answer letters. This doesn't matter so much because the Hosjö school pupils have instead developed the ability to "give". Pupils and teachers at the other school, who are mostly white, are present in spirit and send their thoughts. It is important for them to know that the school in Sweden is there and that the connection endures. In the photo Martin Johansson studies African bookmarks with eco-tips written on the back.





PRODUCT AND PROCESS – PARALLEL TRACKS

Work with Schools on the Path to Sustainability has given participating schools, tutors, and those of us involved at WWF experience of school development and complexity when it comes to getting the whole school on board.

Today a school is a building, an administrative unit, which is dependent upon on a number of external and internal stakeholders. The school restaurant and cleaning services are often outsourced to outside contractors or under another administration, as are the school premises and playground. In addition to policy

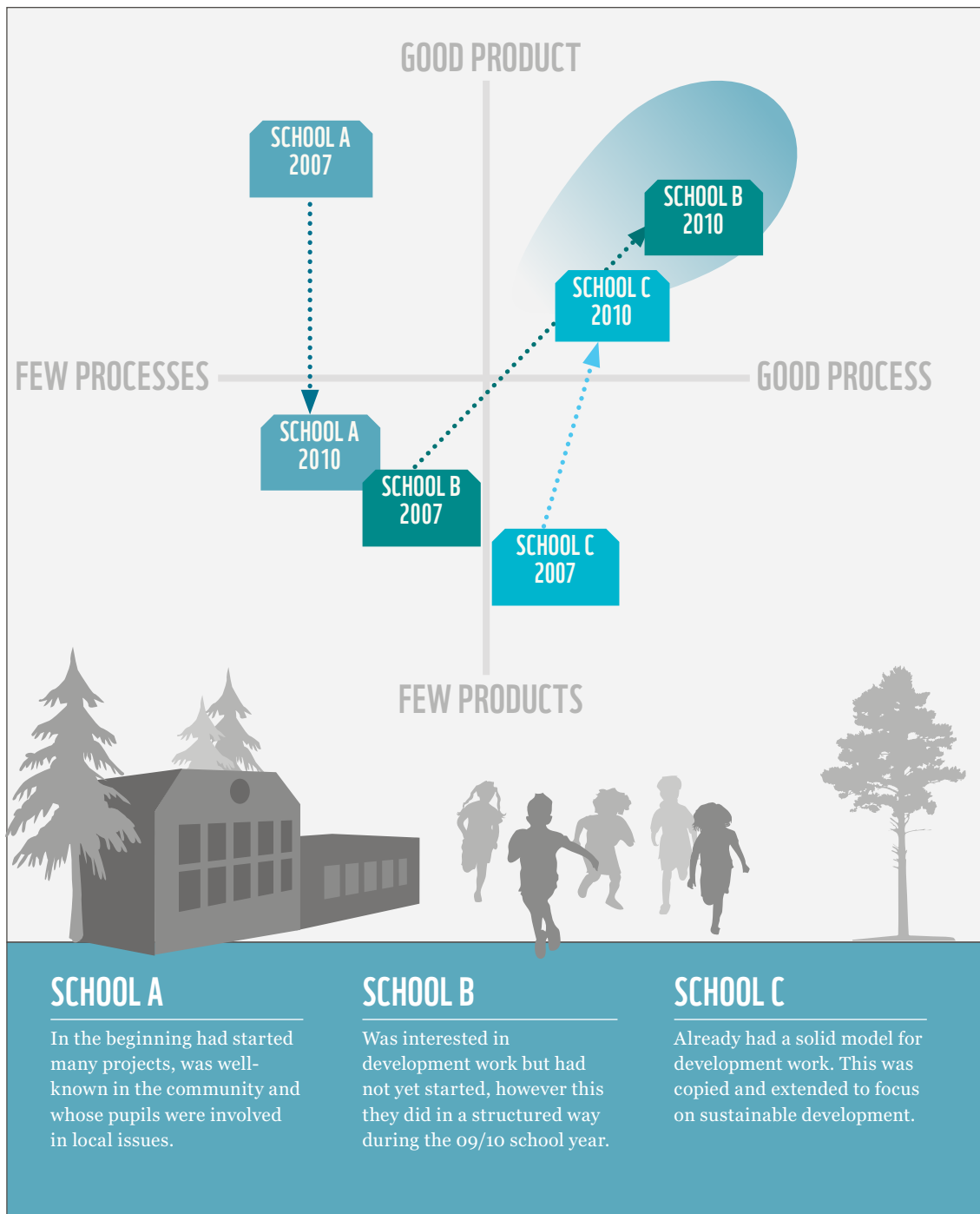
documents there is tradition and expectations held by parents, staff and the pupils themselves. Pupils perceive all of this as the “school”.

The project identified six development areas for the whole school:

- Core values and participation
- Management structure and monitoring
- Teaching and learning
- Pupils in focus
- Interaction with the community
- School premises and resource management

As we have seen, if schools are to develop successfully, the product, i.e., a project undertaken by pupils – a thought-provoking playground or healthy school food – does not in itself mean that the whole school will have grasped the importance of Learning for Sustainable Development. If schools are to develop successfully according to ESD precepts it is essential to gain an insight into the importance of the process itself. We have seen that participation, discourse, decision-making and monitoring are paramount. A school that at first sight might seem to have succeeded loses some of its lustre when the work it has carried out does not extend across the whole school and is not part of a long-term strategy.

The diagram cannot be used to describe how schools change in absolute terms –nor even to compare how successful different schools have been – but it shows that development work must result in a product, although one where the underlying process is given adequate room. Conversely, one cannot engage in a process and never arrive at a finished product. Have you found a balance at your school between process and product when it comes to learning for sustainable development?





SOME EXAMPLES OF THE PATH TO SUSTAINABILITY

Here is a collection of treasures that glitter a little more and that we would like to share with others. They are instructive examples from the project Schools on the Path to Sustainability.

See you at school!

Activities at secondary schools focus on knowledge development as well as the individual's physical, mental and social maturity. Everyone working at the school has a responsibility here. Teachers work in teams. This means that all pupils in a programme or orientation are surrounded by group of teachers that in different ways work for the interests of the pupils and to reach target objectives.

Diversity and dissimilarity are resources and all forms of bullying and mobbing, defamation, insults, abuse, and anything else that belittles the self-worth of the individual are actively opposed.

Urban Atlas

Urban Atlas is an international project to which pupils contribute by surveying neighbourhoods and interviewing people moving about the area. They ask questions about ecosystem services in the district using sound, images and text as media. Two important issues are emphasised:

- What is the status of the district in relation to noise, air pollution and green spaces?
- What ecosystem services are needed to make the city more sustainable?

Urban Atlas is an example of how a school can interact with the community in different perspectives across disciplines and with deliberation.

Local conference

How can you tell others about your experience of school development?

A model school invites staff from other schools in the municipality and local politicians and officials to a conference and informs them about the things they have learned in their work with Learning for Sustainable Development.

The importance of organisation

When a school decides to invest in learning for sustainable development an unambiguous organisation of the school will facilitate things when it is implemented and ensure that it will endure in the long run. Here are some points to consider:

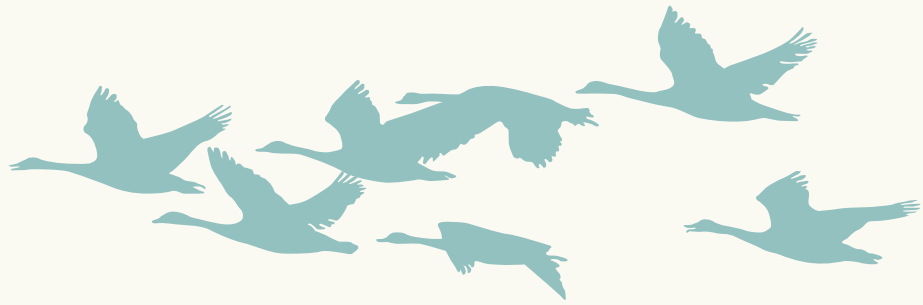
Pupils

- Aim for student participation, action competence and participation in the classroom and other contexts
- Work out an overarching democratic vision for pupils to sustain future work in the school
- Get into the pupils' mindsets by filling the whole school with the precepts of learning for sustainable development

Staff

- All headmasters are familiar with and active in the process
- Teachers at the school are organised in a way that facilitates interdisciplinary work
- Create a task force consisting of representatives from the management, teachers, other staff and pupils whose role is to stimulate learning for sustainable development and who will meet on a regular basis
- Compile a long-term documentation, e.g., an action plan, a long-standing report that describes things as they evolve, recaps history and indicates areas that can be improved
- Carry out an annual review using WWF's self-assessment tool





Consumption Theme

Year eight pupils break their schedule one day a week to work with a semester long consumption theme. To start with the pupils are asked to carry out a shoe inventory at home. This gives rise to important discussions both at home and in class. Subsequently the pupils continue working, by themselves or in groups. Select and plan the tasks in front of you using a special planning template with headlines such as: think and plan, search and process, report and evaluate.

School Conference

How can a secondary school promote democracy, influence and participation? One way could be to let young people participate in decision making for real! In the so-called school conference issues related to teaching, school administration and finances are taken up. The school conference is made up of six pupil representatives, six staff representatives and the headmaster. The school conference is a forum for discussing, collaboration and adjudicating issues that are important to everyone at the school e.g., work environment issues. Pupils running for election run campaigns before their fellow pupils choose who is to represent them.

School cafeteria's long-term work

The school cafeteria is the heart of the school's sustainability efforts.

Some key thoughts:

- Develop weekly menus based on long-term sustainable thinking
- Reduce food waste with the help of pupil participation
- A comment wall can make students' thoughts and ideas visible
- Pupils' project work can be carried out in the kitchen with food issues in focus
- Let the catering staff get involved in school sustainability efforts

A new vision

The value of having a vision that inspires is shown by a secondary school that invested a lot of work, characterized by a spirit of participation, in developing the school's new vision and mission statement:

Learning for life

I develop my will and desire to learn through varied pedagogy where I can use my creativity, communication skills, critical thinking and solution-oriented approach and am able to influence my school work in a direct and comprehensive way.

A positive self-image

I am confident in myself because I can be seen as an individual, thrive and prosper and develop on my own terms.

Social skills

I have understanding and respect for other people, different cultures, human rights, gender equality and tolerance.

Belief in the future

I am aware that I can influence my environment and lifestyle in a positive and sustainable direction.

Playground development

Children and teachers at an F-6 school will makeover the school playground during an entire school year. The project starts with a kick-off and ends with an inauguration. Pupils contribute by making proposals, calculating costs based on a budget and think about do-it-yourself projects, what can be recycled and what must be purchased.

In what ways is sustainable development accentuated in the project?

- Long-term commitment and the pupils' sense of responsibility and participation
- Ecological, social and economic dimensions are self-evident components
- The local environment is used as a pedagogical arena



HAVE WE ARRIVED YET?

Imagine you are standing on a long, winding road. When you turn around, you can look back in time.

You see the birth of the Earth 4.6 billion years ago, the development of life, the fish who arrived many millions of years ago. You look at mankind's arrival on the scene,

how agriculture progresses from sickle to mechanization and to today's GM organisms and satellite navigation ...

You see the first television sets in the 1950's and space travel. Beatles music streams from the radio and suddenly you find yourself in the year 2012 with social media and in the middle of global events and massive climate change. That's when an SMS arrives into your mobile phone with a ping: "Hey! Do you want your children and grandchildren to be just as well off as you are? Join Future Challenge 3.0".

How long are they going to be here?

You look ahead. You see a winding road that passes a warmer climate, more and more storms, melting glaciers, climate refugees ... but further on, behind the hill, a glimpse of new technologies, innovations, human encounters, fuel efficient cars ... New ideas are born.

As we stand on the road of time and reflect on its passage, it is difficult to understand that 100 years ago Sweden was an underdeveloped country, that there were no TVs or computers, and that mobile phones had not yet been invented. To look into a crystal ball and see what is to come is just as difficult as going back through the history books. What will cars, phones, housing, food production, etc., be like in 50 or 500 years time?

We all want to live a rich and stimulating life, free from disease and financial worries. In short we want to live carefree, create a society that bestows the good life on all its citizens both here and now and in the future. What does living the good life really mean? You must ask yourself this question repeatedly and discuss its implications at levels at school, at home, and in the community at large.



Wonderment

The fish that have been here for four hundred thirty million years and the birds that have been here for three hundred fifty million years

sigh to one other

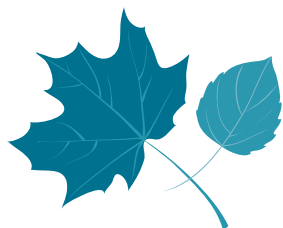
Those that came just now

the two-legged

who strut around and desecrate the Earth

– How long are they going to stay?

Ingrid Sjöstrand from *Acceptera det inte*,
Pax publishers



The good life

In the following haiku Thomas Tranströmer writes:

*The darkening leaves
in autumn are as precious
as the Dead Sea Scrolls.*

The Great Enigma: New Collected Poems, New Directions, 2003. Translated by Robin Fulton.

This is a seemingly simple, even naive poem, but it says a lot about the essential meaning of life. What is there that actually means something? The darkening leaves are starting to break down into the atoms that will become new life – the eco-cycle. The Dead Sea Scrolls, found in 1947 by some shepherd boys, considered by many to be one of the most precious cultural treasures in the world, are biblical manuscripts with roots in Jesus' time. The poet lifts the natural and the cultural onto the same plane. There are many gateways that open onto the good life: from unexpected experiences in nature to cultural expressions of emotion. The author Stig Claesson captures this in his own special way when he describes the past, present and future in a single breath:

“The eternal frost is our history. Each person in our country should someday stand in a peat ditch with his feet on the permafrost and his nose in a balmy blue bell.”

Stig Claesson: On Palm Leaves and Roses, Albert Bonniers förlag

The school's challenges

In this document we have tried to find a place to focus on, a spot we can pinpoint that will help us set down a simple description of how schools can be made carriers of the sustainable future, however we have failed in our quest. Life is too big and rich to be rendered in a single representation. There are few eternal and simple truths. Life changes constantly like white summer clouds drifting in the sky. However, in our work together with model schools we have achieved results, discovered approaches and tendencies that are of interest and can be used by or give inspiration to preschools and schools. Of course, we have been trying to find only the good examples, but along the way we have realised that even mistakes, times when things have gone wrong, are instructive. It is in the cracks that light can penetrate and things will grow! For example, this happens even when there is a lack of participation among pupils, perhaps because the school administration did not prioritize and enthuse sufficiently. Or when the catering staff does not know where the raw materials for school lunches come from, and thus cannot tell pupils about the food they are serving. Or when the school caretaker show curious visitors from Africa how waste sorting at the school is done, and whispers: “Pupils are good at talking but poor at sorting rubbish.”

Another crack in the facade is that ESD can sometimes be just decoration, something you do sometimes just because you should. It is easy to lose sight of how serious and urgent the state humanity is in on earth. The school's internal work suffers from an imbalance where too much emphasis has been placed on pupil welfare conferences (pupils who do not cannot make their grades, have a poor attendance record, indulge in substance abuse, bully, cannot keep up, etc.). Teachers have less and less energy and time to plan their their teaching.

Finally, think about the whole point of learning. It must be possible to combine “learning for life” with getting high grades and making it to university. But how? How do you motivate pupils to “learn for life” if this at the present time in some / many (?) cases does not improve their grades in any way? Can you based on existing policy documents and current grading criteria make minor changes to enable deep learning to have a greater effect on grades? Is this desirable?

What the supervisors think

At the ten schools that WWF has been working with in the Schools on the Path to Sustainability project, supervisors were employed to manage the process of developing the schools into models for learning for sustainable development. Here are some of their voices:

“Previously I thought that the school’s core values and and their work with them were a wooden mantra that sounded hollow. In the Schools on the Path to Sustainability project I have experienced the importance of involvement and participation. A school is like a small community. A sustainable development perspective must be included at all times, both internally in teaching and in development work, but also externally in contact with parents, providers of food and materials, when new staff members are taken on, etc. Earlier I felt the lack of a target when we worked with values, now I see “Living on one planet” and the reduction of ecological footprints as goals.”

“It is important to highlight the models, both for your own school but also for outsiders. The staff and pupils know how important the work is and want to display their commitment proudly to others. Food waste has been reduced, car travel and other transports have decreased, energy consumption has shrunk, interaction with the “rest of society” has increased, awareness stemming from the holistic approach to sustainable development has been heightened, and sustainable behaviour has become widespread ... ”

“The school is not a part of society. Work with the pupils’ core values is not taken seriously. Where is the civil courage in the community and among teachers, and what effect does its absence have on pupils who see us as their role models? The school must become a part of society. We cannot “just” have sustainable development within the four walls of the school.”

“Teacher training should include learning for sustainable development as a pedagogical strategy. That is to say, pupils need to experience ESD in practice to understand and apply it in educational activities.

That’s what I think

In an interview at a model school with a seven-year girl about the school’s environmental objectives the aim of learning for sustainable development is personified. She meets an adult male interviewer who by virtue of age and experience has a huge mental advantage in the interview situation. Still the girl answers with clarity and lucidity and in a patently matter of course way. Despite her tender age, she possesses action competence in sustainable development. She knows, she wants and she can. Standing squarely on sturdy legs, she is secure in her knowledge and thinks things over independently.

– What environmental objectives are you working on at school today? The interviewer asks.

– We will turn off the lights, says the girl in a self-evident manner.

– Why should you turn off the lights? The interviewer asks.

– To conserve energy.

– Is that good?

The young girl thinks intensely for several seconds. Then she answers:

– Yes, it is ... That’s what I think!

A twinkle in their eye

As supervisor, I have been part of a process where sustainable thinking and behaviour are becoming self-evident to teachers and pupils. I have seen the twinkle in the eyes of pupils who believe that that the things they do make a difference.

Gittan Matsson, Supervisor Hosjö School

Everyone rejoices!

The silk ribbon is cut by Margaret the headmistress, who wears a hat especially for the occasion, Eva, the administrator, takes out her trombone and plays a fancy fanfare as the covering is removed – a large sculpture of a panda carved in ice. Pupils make clear their desire to contribute to a sustainable school by singing the school panda song – a given success! Everyone cheers and work as a school on the path to sustainability starts in earnest.

Erika Aberg, Supervisor, Tomtebogård School/ Sjöfru School and Hedlunda School

“Even a large ship can be turned around, it just takes a little longer, but it can be done!”

Susie Broqvist-Lundegård, Supervisor, Björknäs School

We can fix that!

A teachers' meeting in November where very portentous things have been discussed the teachers sit heavily in the conference room. Sustainable development has a low priority and carefully I present some new ideas for the project. It is as silent as the grave ... everyone looks at one another. Then someone exclaims: "Oh, we can fix that! No problems! "

Gittan Matsson, Supervisor, Hosjö School

In every corner work is being done

It is energy-saving day at school. But you can't claim that people are saving their own energy. In every corner energy is being pumped out in all its forms. Children run until their energy runs out. Some pupils visit the combined heat and power plant. Another group examines the school's heat exchanger, while others adorn the window with a large sun after reading the book "Ride a bike, recycle bottles and cans, and save a polar bear." So much activity!

Erika Aberg, Supervisor Tomtebogård School/ Sjöfru School and Hedlunda School

“How can University studies be based any more on ‘Learning for Life’ than they are today, because today they are based on superficial teaching in so many different areas.”

Nina Wolf, Supervisor, Porthälla School and Polhem School



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Sustainable Schools

PARTICIPATION

If a school is to be sustainable pupils, parents and the entire staff must be involved in decision-making and activities.

MANAGEMENT

A committed and supportive school management is absolutely necessary.

VISION

A vision that is both seen and felt in decisions and plans.

ONE PLANET

Give priority to reducing ecological footprints so that we can face the future with the resources of one single planet.

TIME

ESD is a process that must be allowed to take its own time.



Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

wwf.se