



WWF SCHOOLS' CASE STUDIES SERIES

Working towards Education for Sustainable Development

Power to the pupils

This case study looks at how pupils' power to influence decision-making, particularly in relation to their taking action to improve their school's environment, can be encouraged and supported. By reading on you will discover how the project was planned and managed – providing pupils with the opportunity to take control of both the project's development and implementation.

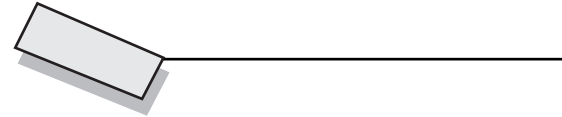
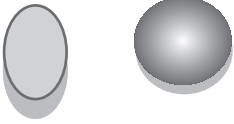
The variety of learning outcomes is illustrated: some are highlighted on page 11, making the link with those listed in the introductory booklet to these case studies – **"Working towards Education for Sustainable Development"**.

Taking a lead in designing and planting a mini-woodland

Our project began simply because we were interested in environmental issues, and in trying out new teaching and learning strategies. As class teachers for P4 (8-9 years) and P5 (9-10 years) in a large primary school, we wanted to explore an environmental theme involving team teaching. We took as our starting point the Bright Sparks Award Scheme theme 'People and Trees'. The challenge for us was its emphasis on Developing Informed Attitudes as an integral part of meeting the curriculum content requirements and attainment outcomes for Environmental Studies 5-14 (see 'Background' on page 12).

As well as achieving the above attainment outcomes, we decided that our project on 'People and Trees' should:

- start from the pupils' experience
- allow the pupils to take ownership of the venture
- ensure pupil involvement in all stages from planning to evaluation
- provide knowledge and understanding from a balanced range of sources – not just books
- help the pupils to determine their own views
- give pupils the experience of participating in collective democratic processes
- raise pupils' self-esteem and develop their social skills
- raise the awareness of the whole school about certain environmental issues
- provide opportunities to forge different links with the wider community.



Overall we wanted to see how we could promote a curriculum in school that works for a more just and environmentally sustainable future.

From initial discussions with the children it was evident that they thought they were powerless to make changes concerning their environment. Through the project we hoped to involve the pupils in activities which would show them that action supporting, for example, biodiversity (the variety of living things and other related nature conservation issues) is for everyone. We thought it important that even our eight and nine year olds should realise that they have a responsibility and an important role to play.

"From initial discussions with the children it was evident that they thought they were powerless to make changes concerning their environment." *Teacher*

In the beginning... a field visit

The initial stimulus for the pupils was a visit to Townhill Woods, a mile from the school. The field trip was a great success for pupils and teachers alike, providing everyone with firsthand experience of a woodland. The children loved it. Our visit was facilitated by the local council's Countryside Ranger. His knowledge and personality meant he quickly established an excellent relationship with the children. He also had activities for everyone to do, introducing us to the trees, the woodland and its other inhabitants.



Rebecca finds her tree

These are some of the activities we did:

- **Meet a tree** – the children were blindfolded and led by their partner to a tree. After feeling/smelling/listening to the tree in different ways and places, they were led away and the blindfold removed. Then they had to try and recognise 'their' tree.
- **How old am I?** – the children were shown how to work out the age of trees by measuring their girth.
- **Who else is around** – the children were asked to look for signs of animal life. The greatest excitement came when they were searching for signs of red deer – their droppings were the key evidence!



Full participation in the search for deer droppings

Back to school – nurturing the seedbed

Back at school, after the visit, the children talked and wrote about what they had seen and done. From their work it was obvious they were enthralled and very much interested in the woodland.

In class, over the next three weeks, we investigated many aspects of living things in the woodland. A clear change in attitudes was already evident. Those who had not really considered their environment before were now very excited about it.

We had reached a crucial stage. We felt the children now had both the knowledge base and confidence to take the reins. We would soon find out the direction our children wished to go. This was the point where we and the children would move into the unfamiliar territory of developing informed attitudes, critical thinking and child-led project management.

"We had reached a crucial stage. We felt the children now had both the knowledge base and confidence to take the reins." *Teacher*

From the seed of an idea to seedling project

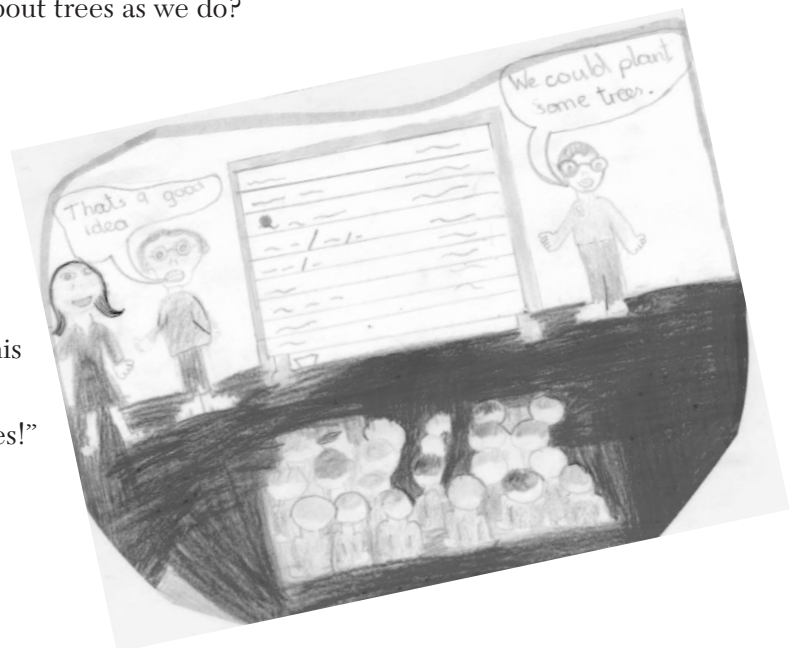
We brought both our classes together and posed this question: How can we encourage all pupils in McLean School to care about trees as we do?

The children came up with a long list including:

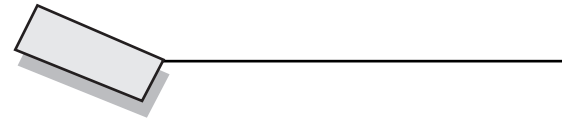
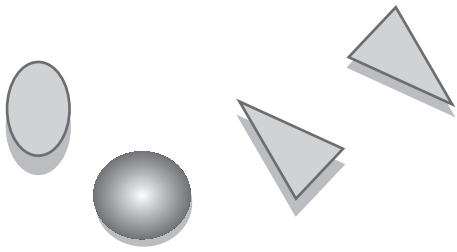
- making leaflets
- organising competitions
- talking at assemblies, and
- planting a seed or acorn and watching it grow.

Euan gave the last idea in a very animated way. At this point all the children became very excited saying "That's a great idea!" and "Yes, we want to plant trees!"

"Yes, we want to plant trees!" *Pupils*



Euan's bright spark of an idea



Now the teachers' 'double act' began: we played devil's advocates and put forward as many hurdles as possible. We warmed to the role – giving the children a hard time and saying things like:

“You can't do that!”

“You're only children!”

“Where on earth would we do this?”

“Why should we let you plant trees?”

“Can you give us reasons for planting trees?”

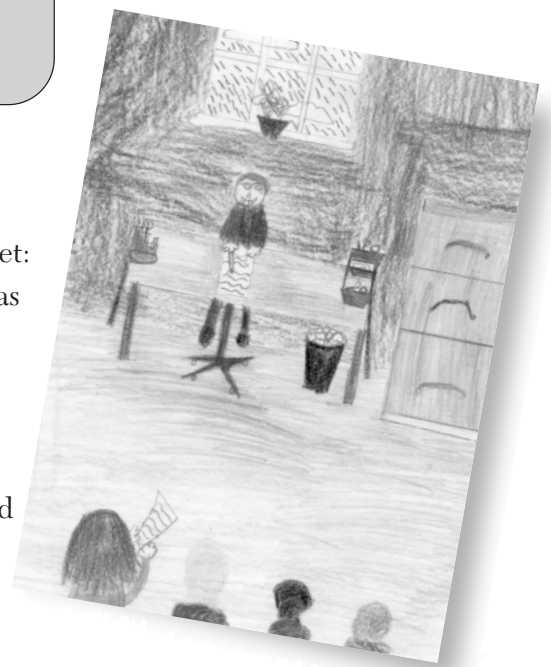
The children were ready with their responses and hands shot up. We said that we needed them to bring us at least 10 good reasons for planting trees. If they wished they could enlist the help of anyone at home. The next morning they far exceeded the 10 required reasons.

- 1 Children could study insects and mini-beasts
- 2 Children could study birds
- 3 Children could study trees
- 4 Children could study maths
- 5 Children could study art
- 6 Children could study language
- 7 Helping the environment
- 8 Something to care about
- 9 Community involvement
- 10 Future generations

A final list of the 10 strongest reasons for planting trees

We recognised that this was the ideal opportunity to encourage the children to take greater responsibility for the project. We admitted that they had convinced us, but there were conditions they must meet: they would need to persuade the school management team that it was a good idea; they needed to find a suitable planting place, and they would have to do all the work themselves.

After persuading the deputy head teacher, four very nervous and excited class representatives walked down a long corridor to the head teacher's office. Thirty minutes later, four pale, exhausted jellies emerged from the lion's den, and reported back to their classmates with the good news: the project could go ahead.



Representatives in with the head teacher

The project grows and branches out

The children decided to plant in a small site within the school perimeter. So, on a lovely summer afternoon, they measured and drew up a plan of this grassy patch. Their research extended to investigating and including suitable native species for their mini-woodland. The classes realised that they needed expert advice and in their opinion a Countryside Ranger would be ideal, so letters were written to the Countryside Ranger Service. When the Countryside Ranger visited, the pupils made many decisions about the design of their woodland, and set a date for planting 60 native trees and bulbs – 19 November.

The pupils decided that we needed to involve the whole school.

They carried out the following activities:

- presentations at school assemblies – ‘The Disappearing Forest’
- in the main corridor, a mini-woodland noticeboard was regularly updated
- a variety of woodland competitions were organised for all classes, and
- a ‘whole school survey’ was devised to ascertain the views of their peers.

The results of the questionnaire survey showed overwhelming support from their peers. This motivated our classes to proceed even more enthusiastically.

Whole school survey

Survey on proposed mini-woodland
Primary 4 and Primary 5 are hoping to create a mini-woodland on the grassy area behind the huts.

Would you enjoy using a mini-woodland for studying these things:

| | | |
|----------------|--------------------------|--------------------------|
| 1. mini-beasts | yes | no |
| 2. birds | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. trees | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. maths | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. art | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. language | <input type="checkbox"/> | <input type="checkbox"/> |

Do you think a mini-woodland would allow you to:

| | | |
|---|--------------------------|--------------------------|
| 7. help the environment | yes | no |
| 8. show you care about living things | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. involve the community | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. provide future pupils with a very special place | <input type="checkbox"/> | <input type="checkbox"/> |

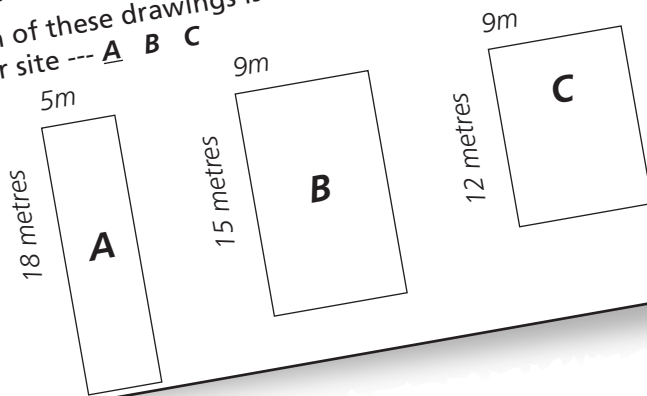
11. Would you be prepared to look after such an area? yes no

12. Any other comments?

McLean Woodland

Underline the correct answers

- The trees we are planting on our site are ---
rowan oak holly hawthorn birch blackthorn
- We chose these trees because ---
they are native they grow fast
they produce berries they are fairly small
- We want to attract birds like these ---
blue tit crow robin starling eagle
- We shall create homes for animals by ---
putting up boxes bringing in twigs making burrows
- The best time to plant trees is when they are dormant.
This is in --- November April June December
- The flowers we are planting are ---
tulip bluebell snowdrop daffodil wood anemone
- Which of these drawings is a plan
of our site --- A B C



Funds were needed to purchase the 60 native trees and bulbs for the mini-woodland. An approach for funding support was made to the Council-administered Fife Grounds for Learning: Environmental Awards Scheme (see 'Valuable resources' on page 12) which gives grants for this kind of initiative.

It was also agreed that we should involve the wider community and get their support and help. Pupil-designed leaflets were made and delivered to inform neighbours of our plans; pupils telephoned and wrote to a Youth Training Group to invite them to help, and visited Kingdom Compost at Lochgelly, where household waste is made into compost.

Like many best-laid plans the children's planting day had to be postponed. Due to the extremely mild weather our sapling 'whips' were not dormant yet, and therefore could not be lifted. The would-be tree planters were distraught at this news and we felt so sorry for them.

| | | | |
|----------|-----------------------------------|---------|---------|
| 27.10.97 | cheque | | £400.00 |
| 18.9.97 | photos 7x25p | | £1.75 |
| 18.9.97 | enlargement of photos | | £9.50 |
| | broad beans | | £1.45 |
| | border display | | £1.00 |
| 6.10.97 | 2 A3 Flip Files | 2x£6.75 | £13.50 |
| 6.10.97 | stickers for worksheets | | £2.97 |
| | 2 posters | | £1.80 |
| | compost | | £1.20 |
| 27.10.97 | bulbs | | £3.00 |
| 31.10.97 | wood for the fence | | £71.50 |
| 1.11.97 | bulb planters | 6x£3.99 | £23.94 |
| | disposal gloves | | £2.58 |
| 1.11.97 | competition prizes | | £7.95 |
| | gate catch, labels, nails, marker | | £20.18 |
| | pens, plant twist, hinges, | | £11.25 |
| | photographs 45 x 25p | | |
| | | | £176.43 |
| 6.11.97 | photos | | £ 3.69 |
| 8.11.97 | Timbercare | | £ 5.49 |
| 8.11.97 | prizes | | £ 2.98 |
| 8.11.97 | photos | | £ 2.49 |
| | stationery | | £ 5.25 |
| 11.11.97 | photos | | £ 3.69 |
| 11.11.97 | prizes | | £ 9.99 |
| 16.11.97 | biscuits | | £ 5.94 |
| 19.11.97 | film | | £ 1.99 |
| 20.11.97 | photos | | £ 3.69 |
| | | | £131.23 |

Woodland accounts

We had to do something light-hearted to cheer them up, so we took them out to the woodland area and gave each of them a coloured band, representing a type of tree. The pupils stood at the spot where their tree should have been planted, and made a sad face.



Evidence of how difficult it is to maintain our sad expressions!

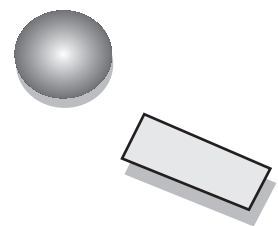
On a very cold, wintry morning in early December, 55 pupils and two teachers braved the freezing weather to plant their whips. Again the Countryside Ranger was on hand supplying tools, saplings and expert advice. At last we had successfully planted up our mini-woodland!

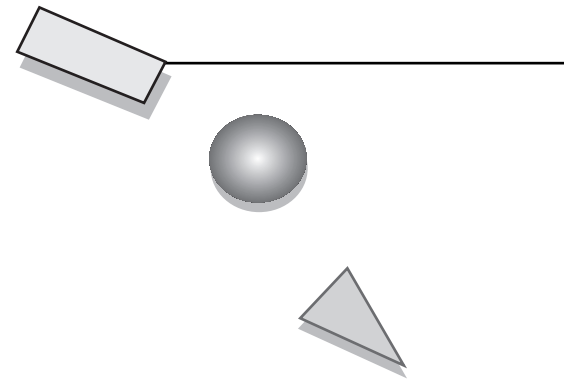
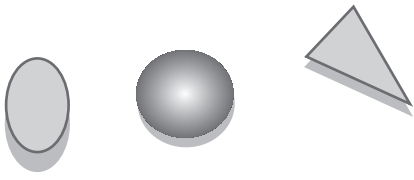


Planting our trees

On the 12 December 1997, the woodland was officially opened by our Countryside Ranger, Mr Bonar, and a commemorative plaque unveiled. For the same day, pupils and teachers put a lot of hard work and preparation into a well-attended presentation about woodland involving singing, story telling, reporting and poetry. The audience comprised a variety of people, mainly parents and others who had helped and supported us throughout the project.

During term time and the long summer vacation, the pupils regularly visited the woodland to water their trees. The Countryside Ranger had advised us that each tree would need about a litre of water each week so the children organised a rota. A water barrel was placed in the wood and filled up before the holidays. It was agreed that, if necessary, the children would bring their own water in plastic bottles.





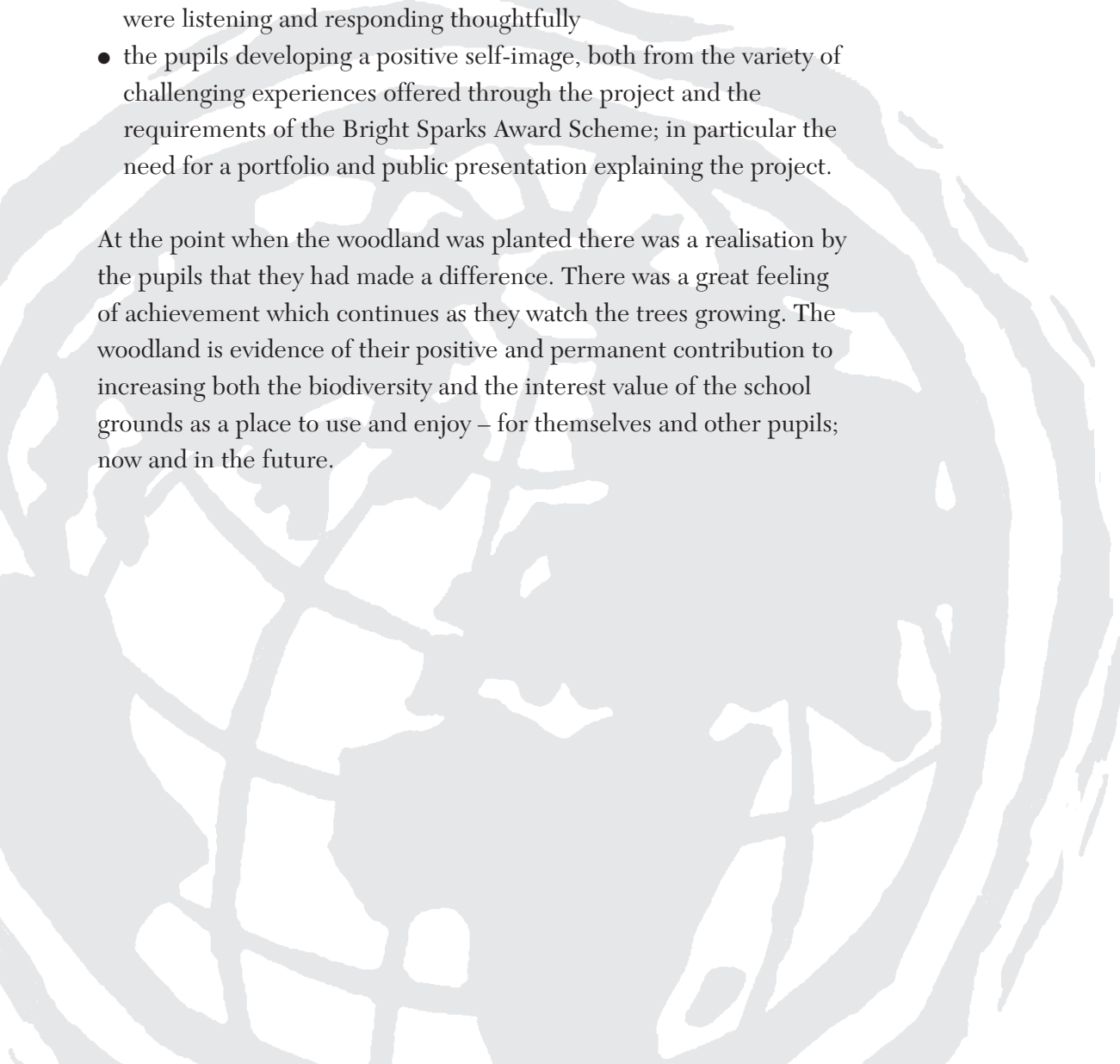
So... did the pupils have the power to change their environment?

On reflection, we say 'yes'! In addition, the pupils managed the project and took control of its direction and their learning. We felt the project achieved all of the objectives we had set out at the beginning. In particular, we were amazed at the pupils' total ownership of the project and the way they took control.

There were a number of other positive outcomes, including:

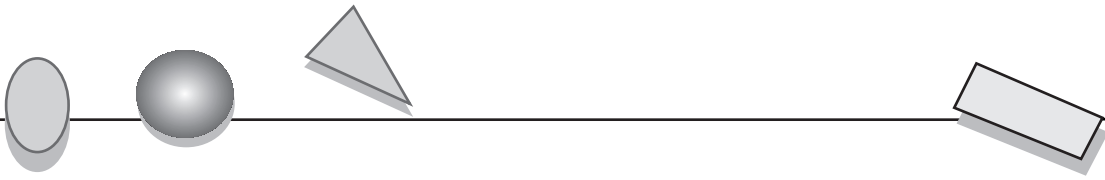
- the high level of commitment and quality of work that was consistently produced throughout the project, even from normally low achievers
- parents, during interviews, talking of their child's interest in and enthusiasm for the project outwith school
- the pupils becoming increasingly aware of the value of others' opinions; for example in group work it was evident that the children were listening and responding thoughtfully
- the pupils developing a positive self-image, both from the variety of challenging experiences offered through the project and the requirements of the Bright Sparks Award Scheme; in particular the need for a portfolio and public presentation explaining the project.

At the point when the woodland was planted there was a realisation by the pupils that they had made a difference. There was a great feeling of achievement which continues as they watch the trees growing. The woodland is evidence of their positive and permanent contribution to increasing both the biodiversity and the interest value of the school grounds as a place to use and enjoy – for themselves and other pupils; now and in the future.



Some unexpected outcomes from the project for McLean Primary

- providing photographs for the government's *Down to Earth* report, giving a Scottish perspective on progress towards sustainable development. The Ministerial launch of the document was held at the school
- a page in the *Times Educational Supplement* on our project, and a great deal of press coverage generally
- a certificate for 'Protecting and Enhancing Fife's Environment' from Fife Council
- a year's free membership of the Scottish Wildlife Trust in recognition of our good work
- silver and gold awards from WWF *Junior Education's* Challenge 2000 competition
- the teachers made a contribution to two WWF day courses for educators, and a presentation at an educational conference in Astrakhan, Russia
- the teachers have taken part in the WWF/Scottish Hydro-Electric's Live Wires programme, a follow-up to Bright Sparks which helps and encourages Bright Sparks schools to share and network their experience with other people and schools. On this occasion, a staff development event for teachers in the Fife area was held
- pupils' letters were used as examples of good practice in Rosemary Feasey's book *Primary Science and Literacy Links*
- a selection of pupils' project work was published in a Primary Science (Association of Science Education) booklet.



What about Developing Informed Attitudes and Education for Sustainable Development?

Evaluating the development of informed attitudes is difficult. We used discussion as a means of finding out how the pupils were thinking and developing their ideas. The following are the kinds of things that they were saying during the project:

"It's brilliant being in charge."

"This project is so important. Why doesn't everyone think like us?"

"Everyone in class had a chance to do something special or important."

"This is a fun way to learn - from our mistakes."

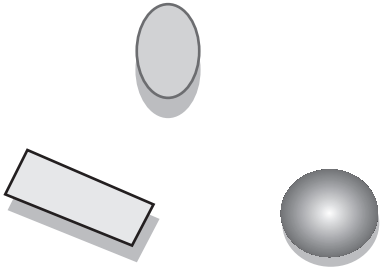
"We love making decisions."

"It's a real project!"

"This project is good because it's more than just doing worksheets."

In evaluating in what ways our project met the goals of Education for Sustainable Development, we ask you to compare the values and attitudes, skills, knowledge and understanding we have listed, with those discussed in the introductory booklet to these case studies – "Working towards Education for Sustainable Development". We concentrated on meeting the needs of our P4 and P5 pupils, particularly those relating to their personal and social development. Providing the children with the opportunity to take more control was not something we had tried before, but we are now convinced of its value.

This project was a first building block towards positively addressing the Developing Informed Attitudes strand and Education for Sustainable Development in the school. We have all learnt and benefited – teachers, pupils and the school environment, and we intend to build on this for future years.



What's this got to do with Education for Sustainable Development?

Some important learning outcomes achieved and built on throughout the project:

Knowledge and understanding

- how natural processes work and how people, animals and plants are interconnected
- how the emotions as well as science are necessary in understanding how important a woodland is to the environment and people
- how the processes of decision-making work and how to take part in them.

Skills

- co-operation and negotiation skills
- research skills and informed decision-making
- information handling and the ability to argue effectively
- critical thinking
- being creative and problem solving
- a variety of communication skills.

Values and attitudes

- a sense of identity and self-esteem
- empathy and awareness of the points of view of others
- a desire to participate for a better future
- valuing diversity and the well-being of all living things
- understanding individual and collective responsibilities
- a belief that, working with others, young people can make a difference
- a belief in social justice and equity – young people have rights as much as adults.

Further information

For copies of this and other Bright Sparks case studies, or for information on current initiatives for Scottish schools, please contact: WWF Scotland, 8 The Square, Aberfeldy, Perthshire PH15 2DD.

For information on the full range of titles within the WWF Schools Case Studies series, please contact: WWF-UK, Panda House, Weyside Park, Godalming, Surrey GU7 1XR.

Valuable resources

Countryside Ranger Service. Most Local Councils in Scotland have a Ranger Service providing a service to schools, either area-wide or at a Country Park. There are several private Ranger Services run by large Estates, or Non-Governmental Organisations such as the Scottish Wildlife Trust or National Trust for Scotland. If in doubt contact your Local Council, or local Scottish Natural Heritage Area Office, for information on local availability.

Grounds for Learning – The Scottish branch of Learning through Landscapes supported by Scottish Natural Heritage. A small organisation providing advice and teacher development and networking in improving school grounds as a resource for learning, as well as providing a better environment for children. For further information (including advice on funding sources) please contact the project co-ordinator at 01786 466570. Elsewhere in the UK, contact Learning through Landscapes on 01962 846258.

Fife Grounds for Learning: Environmental Award Scheme. A local solution to help Fife schools by providing a one-stop grant scheme for improving school grounds. For further information please contact the administrators on 01592 413679.

Fife Regional Council (as was) **Environmental Studies 5-14 Guidelines.** Several Local Councils have developed their own guidelines. It is worth finding out what is available in your own area and elsewhere from other teachers.

Acknowledgements

Case study written by Lynnette Borradaile, based on a report written by Karen Robertson and Catherine Sinclair, class teachers of P4 and P5 at McLean Primary School, Dunfermline, Fife. Published by WWF-UK on behalf of WWF Scotland. © WWF Scotland, May 2000.

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The School and its project

McLean Primary School is situated in Dunfermline, Fife. The school has 350 pupils and 13 class teachers; three non-teaching promoted staff and a full-time nursery on site. Teachers are actively encouraged to foster and develop local community links.

The school's 'People and Trees' project was Winner of the 1997 Bright Sparks Award. The case study describes how two class teachers and their 55 pupils in P4 (8-9 years) and P5 (9-10 years) created their own mini-woodland in the school grounds. The project lasted almost six months, instead of the planned three months! The project is a testimony to the way children, even at the age of eight and nine, can take on responsible roles with the right kind of support, and can develop strong views as to the way adults manage society and the environment, on their behalf. In addition, the pupils gained considerable knowledge and understanding relating to woodlands and to the democratic process, using skills drawn from a variety of disciplines – English, Maths, Technology, Science, Geography, Expressive Arts, History, and Personal and Social Education.

This case study aims to share some insights into how a large primary school has taken up the challenge of ESD – providing real world experience and relevance behind Environmental Studies. We hope it will stimulate others to take these or other ideas forward.

Background

This case study is one of a series published by WWF-UK. Each one describes aspects of work undertaken by schools across the UK, whilst involved in WWF professional and curriculum development programmes.

In Scotland, support was provided through the Bright Sparks Award Scheme – managed by WWF Scotland and sponsored by Scottish Hydro-Electric – between 1996 and 2000. The scheme focused on the 5-14 Environmental Studies national guidelines (for those outwith Scotland, this is the curriculum context for teaching Science, Social Subjects and Technology) which provide an opportunity for integrating the principles of Education for Sustainable Development. In particular, the scheme aimed to stimulate good policy and practice demonstrating ways to integrate the 'Developing Informed Attitudes' strand within the guidelines. This is one way in which WWF helps develop ideas for new teaching and learning approaches – equipping students for thinking about and acting in ways supporting the goals of sustainable development.