

# **EMBEDDING SUSTAINABLE DEVELOPMENT IN THE CURRICULUM**

Purpose of the document: Provide guidance and support for staff within learning institutions seeking to embed sustainability into what and how they teach.

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## **1.0 Executive Summary**

Albert Einstein once said:

*"Anyone who has never made a mistake has never tried anything new."*

The fear of making a mistake or not knowing all of the answers often prevents people taking the first step on a longer journey. We often find this is true in relation to sustainable development and we believe this fear is one of the major barriers

preventing sustainable development being taken forward at the pace that is needed. We also feel that the following sentence must be true of 99 per cent of learning providers.

How can I embed sustainable development into to what I teach when I don't really understand what it means?

This document aims to help learning providers on this journey.

The research on which this document is based showed that curriculum leaders within Further Education and other learning organisations are taking action on embedding sustainable development within the curriculum – but not in a consistent and ambitious enough manner. The research also found that good practice does exist and often it is made up of very simple first steps.

In an easy to follow format we have identified some of the approaches currently being used, gathered a variety of examples and provided a list of contacts if you would like to speak to anyone further. We hope you will use this document to prompt discussion and debate on how you can embed sustainable development within the curriculum and, coupled with the related document – 'Creating the conditions for embedding sustainable development within the curriculum', engage with senior management to move this forward.

We believe sustainable development is a journey for us all and the more we discuss, challenge and share ideas and new thinking the more successful we will all be.

## **2.0 Introduction**

*"Our biggest challenge this new century is to take an idea that seems abstract – sustainable development – and turn it into a reality for all the world's people,"*

Kofi Annan, Former UN Secretary General, 2001.

This must be one of the most over-used quotes in sustainable development (SD) circles. It is used by consultants, lecturers, SD champions and of course politicians. It is referenced in hundreds of documents. You can find it in almost every book on sustainability written since 2001 and it is featured in almost every presentation on SD.

So why have we chosen to use this quote as part of the introduction to this document? Well, that's because we believe it to be true. The challenge of sustainability is one for us and for the communities we live in. Yet it is a unique challenge because as learning providers we are the issue and the opportunity, the problem and the solution. To make a positive impact, sustainability needs to resonate with people in their daily lives.

Learning providers have a major role to play in supporting societies to develop the skills they need to respond to the SD challenge. Your role is to help to build intellectual

capital and motivate future generations. Perhaps most importantly, you have a key role in taking this abstract idea and turning it into reality in a wide range of contexts and disciplines. The Learning and Skills Council (LSC) accepts the sector's key role in this challenge and, through the Sustainability Online Resource and Toolkit for Education (SORTED) website (<http://www.eauc.org.uk/sorted/home>) has committed to help support learning providers rise to it.

This document has been developed following research into how learning providers are integrating SD into the curriculum. The research showed that progress was mixed but good examples did exist and could be shared. It was also clear that good examples of SD in the curriculum tended to come from institutions which also demonstrated supportive behaviours or had created conditions which would help to embed sustainable development in the curriculum (this is the subject of the related document – Creating the conditions for embedding sustainable development in the curriculum)

This document provides a range of examples of very practical ways of embedding SD into curriculum content and delivery.

In many cases the people and institution in the examples are not responsible for the development of the curriculum itself. When this is the case, we found the learning providers had been especially creative and innovative in the way they integrated SD into what they did.

What was also true was that the individuals who were leading this agenda did not consider themselves specialists in SD and nor was it part of their job description. Nevertheless they now feel confident enough in their experience and practice to share their work and progress with other institutions. They have overcome the biggest SD hurdle – confidence to make a start.

You may already have made good progress on integrating SD into curriculum content and delivery. It may also be true that your institution is making progress without you knowing. We urge you to use this document to stimulate thought and discussion among your colleagues, to take the opportunity to share the examples and look for examples of your own.

We hope this document will play a small part in supporting learning providers on the sustainability agenda. If you have any queries or examples of your own to share, please do contact us. Our details are contained in Appendix 1.

### **3.0 Background to the project**

The LSC is committed to supporting SD and promoting good practice throughout the sector. This was clearly set out in its strategy for SD, *From Here to Sustainability* (2005). The strategy also set goals for achievement by 2010, reflecting those of the UK Government in its strategy *Securing the Future*, 2005. As part of those goals the LSC identified the need to promote the integration of SD into teaching and learning.

The LSC commissioned research to identify where colleges and other learning providers had made progress on integrating SD within the curriculum. Once this research was complete it was to be turned into guidance for the SORTED website to support other learning providers who were on the same journey

The research involved speaking directly to 35 institutions, undertaking telephone and face to face interviews as well as web research and document review. This research was not limited to institutions in England and there are some examples from Wales and Scotland. The project was supported by a range of institutions that have shaped these documents and provided excellent advice and input. A full list of these individuals and providers can be found in Appendix 1.

Whilst undertaking this research we identified that progress in the sector was mixed. There were some good examples of innovative and practical approaches to the challenge of embedding SD in teaching and learning and there are many providers where the focus remains directed towards estates and premises.

A relatively small number of learning providers have begun to embed SD in the curriculum, addressing it as part of learning across a broad range of curriculum areas. We would like to encourage an acceleration of this trend by sharing practical examples of how it can be done and how a learning provider can create the conditions to make it happen.

### **4.0 How to use this document**

We believe that this document can be used in a number of ways; here are some suggestions. Use this document:

- as a discussion piece at SD champions meetings or similar steering groups;
- for circulation to your institution's curriculum leads to stimulate discussion about what stage your institution is at and the conditions you face;
- as the basis of a training session or discussion session for staff involved in curriculum development;
- as a staff development tool with tutors;
- as stimulus for policy development by the appropriate governing body, curriculum board or Senior Management Team
- within your team to help the self assessment process and preparation for inspection;
- to provide the motivation to contact us to discuss this further!

If you have any further questions or can suggest other ways you have used this document which may be useful for others, please do get in touch.

## **5.0 What is Education for Sustainable Development?**

Definitions of 'sustainable development' or 'sustainability' are numerous and often confusing. This is no less the case with 'Education for Sustainable Development' (ESD).

When we speak about ESD – or 'learning to last' as it has been called – we mean finding and using opportunities to include environmental, economic and social content or considerations in the subject you teach

However, many other definitions exist. Section 5.1 outlines the definition of ESD developed by UNESCO and the definition in section 5.2 was developed by the Sustainable Development Education (SDE) Network which is much more detailed and includes information about the key skills, knowledge and attitudes needed. This is the definition you will probably find of most use if you are already familiar with thinking about ESD.

### **5.1 Definition of ESD from UNESCO**

ESD is about learning to:

- respect, value and preserve the achievements of the past;
- appreciate the wonders and the peoples of the Earth;
- live in a world where all people have sufficient food for a healthy and productive life;
- assess, care for and restore the state of our planet;
- create and enjoy a better, safer, more just world;
- be caring citizens who exercise their rights and responsibilities locally, nationally and globally.

### **5.2 Definition of ESD from SDE Network**

**SD Education is the process of acquiring the knowledge, skills and attitudes needed to build local and global societies that are just, equitable and living within the environmental limits of our planet, both now and in the future.**

A sustainable society is one that at a local and global level is just, equitable and living within the environmental limits of our planet both now and in the future. SD is the term given to the process of developing our society to move from where we are now to a state of sustainability.

Undertaking SD and achieving sustainability requires the development of new knowledge, skills and attitudes. The process of acquiring the knowledge, skills and attitudes needed is known as ESD.

### **Key knowledge in ESD**

The key knowledge and understanding that sustainability requires and that ESD seeks to cultivate is focused around six principles:

- The interdependent nature of our society and life on our planet.
- The limited carrying capacity of our planet.
- The value of biological, social and cultural diversity in maintaining the wellbeing of our planet and our society.
- The essential role of rights and responsibilities in a sustainable society.
- The essential role of equity and justice in a sustainable society.
- The presence of uncertainty and the need for precaution in making decisions about our planet and our society.

### **Key skills in ESD**

The key skills that sustainability requires and ESD seeks to cultivate are:

- The skills to understand the relationships between different issues, appreciate how they are connected and, as a result, make decisions and solve problems in a joined-up way.
- The skills to enable groups to make collective decisions and work co-operatively together even though all members of the group may not hold the same views and power may not be distributed evenly among the group.
- The skills to think critically about problems, issues and situations to enable individuals and groups to move beyond thinking about how can we make the systems and products we have less unsustainable, to thinking about the kind of systems and products we need to achieve sustainability.

### **Key attitudes in ESD**

The key attitudes that sustainability requires and ESD seeks to cultivate are:

- The confidence to take action and the confidence that these actions will make a positive difference.
  - The appreciation that we are all part of society and that our individual behaviours must be balanced by our responsibilities as members of that society.
  - The attitude that humanity is part of the natural world, that we depend on it for our wellbeing and that we must respect its limits and live in harmony with it.
  - An attitude of respect for the biological, social and cultural differences and diversity that are a fundamental part of our world.
  - An attitude for caring for yourself, for other people, for other living things and for our planet.
-

Of course, it is important that any ESD content you include in your curriculum is relevant both to the subject you are teaching and to your students. And you should also remember that considering SD may need a change in the way the subject is delivered in terms of the teaching approach, style or content.

### Questions to consider

- Is ESD something you consider in your teaching?
- Could you explain to Ofsted what the institution is doing in relation to ESD?

## **6.0 How do you embed ESD into the curriculum?**

The research showed that there are a variety of ways to integrate and embed ESD into the curriculum. It may be that ESD is already embedded as part of the course you are teaching as it is already considered an integral part of the qualification. However, it is more likely that it has not been explicitly considered.

Most courses you teach will fall into one of the following categories:

- 1 SD is fully integrated into the course.
- 2 SD is mentioned in a particular module of the course.
- 3 SD is not mentioned but you can see where it might fit.
- 4 SD cannot be easily integrated within the course.

The research showed us that people's opinions of their courses are polarised. They either believed that SD cannot be easily integrated within the course, or that it was already fully integrated.

However, experience tells us that most courses actually fall into the second and third categories. So it is important to take the time to really look at what you teach and how you are teaching to find the opportunities to integrate SD into what you do.

Do not fall into the trap of thinking that SD needs to be mentioned in every discussion. The course content may mean the term SD is never explicitly mentioned, but issues of pollution and proper waste disposal, for example, are.

## **6.1 Embedding SD into vocational qualifications**

There are usually good opportunities to embed SD into vocational programmes. Hairdressing is a good illustration. Let's use a course on hairdressing (Level 3 City and Guilds) as an example.. A simple approach is to look at what is being taught and what is used in the profession of hairdressing.

A hairdressing course will probably cover the following areas:

- discussing with the client how they want their hair done, giving advice and suggesting ideas for suitable styles;
- shampooing and conditioning;
- cutting and styling;
- colouring, perming or straightening;
- advising on minor hair and scalp problems;
- making appointments and handling payments;
- ordering materials;
- sourcing natural hair for hair extensions and wigs.

To understand where SD might fit into this qualification we should look at the materials the profession of hairdressing also consumes. This will include;

- energy;
- chemical usage (hair dyes, shampoos etc);
- water;
- natural hair;
- hairdressing equipment (hairdryers, straighteners, towels etc);
- office materials (computers, paper etc).

When integrating SD into the content of a hairdressing course you could expect to cover the following:

- Energy efficiency – how to save energy (energy efficient equipment, energy saving behaviours).
- Chemical use and storage - the choice of chemicals being procured, the safe disposal of leftover chemicals, the impact of chemicals on the environment and long-term health impacts on humans.
- Environmentally preferable options for hair dying.
- Water efficiency – reducing water consumption.
- Sustainable office management - recycled and recyclable leaflets, good environmental housekeeping.
- Natural hair – ethically sourced.
- Procurement – where do the supplies come from and what can you do through examining the supply chain? Can you use a supplier with an environmental policy? A local company to cut down on delivery miles etc?

This is a simplistic view of hairdressing for the purpose of providing an example – a hairdressing professional would be able to identify more impacts. When integrating SD into this qualification we suggest these are some of the things to consider.

## **6.2 Ten Step Summary**

In summary, a simple approach to embedding SD in any subject area is as follows:

1. Read and familiarise yourself with the definitions of ESD referred to earlier in this document.
2. Consider the content of what you teach as well as how you teach it. Where does it lend itself to environmental or social considerations?
3. Identify current resources available to you and start filling in gaps. Familiarise yourself with the general ESD web resources in Appendix 3.
4. Research vocationally specific resources via relevant professional bodies and sector skills councils.
5. Identify the environmental, ethical and social considerations you can raise as part of the course.
6. Identify the generic skills relating to sustainable development that can be developed or reinforced, such as joined up thinking.
7. Have the conviction to get started, sharing expertise and working together means that you do not need to be experts
8. Use your learners as a resource.
9. Make some changes!
10. Share your examples with others, talk to colleagues and add your examples to the SORTED website (<http://www.eauc.org.uk/sorted/home>)

### **6.3 Embedding SD in academic qualifications**

People often challenge the relevance of SD to more academic subjects such as Maths, English or Philosophy as opposed to vocational subjects.

Direct resource consumption or pollution (as in the case of hairdressing) may not be such an issue here but SD certainly is relevant to the content of these subjects. For example:

- In English you may need to compare different writing styles e.g. journalistic, government reports, business articles. Why not do this using sustainability text?
- In Mathematics it may be possible to solve problems based on environmental data or by looking at trends using weather data or temperature.
- In Philosophy you could review the development of environmental thinking or look at the views of great philosophers on environmental issues.

Here is the point. The professionals in their subject areas are the most effective SD champions a learning provider can have. Armed with some knowledge about what SD and ESD is about and using a simple approach, a lot can be achieved. Every course is different and therefore there is no “one size fits all” approach. The best people to do it are those who teach.

### **7.0 Examples of ESD teaching**

The research we carried out for the LSC uncovered a range of approaches to integrating ESD into learning and encouraging SD learning outside the curriculum. We have categorised these for ease of reference.

Each category consists of a brief introduction, some examples of approaches taken and some questions for consideration. Please feel free to use these examples to stimulate thought and discussion within your institution. As ESD develops more detailed examples of good practice will emerge and the Ofsted Excellence Gateway and the SORTED website will be a good source of further examples.

SORTED Website <http://www.eauc.org.uk/sorted/home>

Ofsted Excellence Gateway <http://excellence.qia.org.uk>

These category headings provide examples of different approaches and are intended to stimulate thinking. The categories are:

- 7.1 Tutorials
- 7.2 Short courses
- 7.3 Key skills and Skills for Life
- 7.4 Projects
- 7.5 Community as a learning resource
- 7.6 The workplace as a learning resource
- 7.7 Enriched curriculum

## 7.1 Tutorials

Tutorials have been identified as a good opportunity to encourage ESD. The time can be used by the tutor to cover a range of environmental and social issues and can be linked into the broader sustainability ambition of the institution.

### Examples include:

**Further Education Institution:** Hull College

**Approach:** Tutorials have been a key method of embedding SD. Learners have two hours of tutorials per week. One example is the linking of tutorial content to democracy. A yearly democracy day is held where local councillors are invited to the college and the students have the opportunity to ask questions linked to sustainability. The invited councillors find this challenging but enjoy the head-on approach. They have to prepare carefully for the stiff examination they face from the students.

**Outcome:** Connects the students with the outside political environment and encourages them to develop a greater understanding of relevant issues and challenge the status quo.

**Further Education Institution:** Wiltshire College

**Approach:** At Wiltshire animal care and management students have to conduct an

*environmental audit of the Animal Centre using a list of questions which helps them to increase and explore environmental concerns.*

**Outcome:** *This approach allows them to analyse an environment similar to that in which they can expect to work once their training is complete. In this way the training is experiential and directly relevant to them and their learning. It also ensures environmental targets for the centre are monitored by the students themselves. The questionnaire covers energy, waste, water, transport and pollution.*

**Further Education Institution:** *Bedford College*

**Approach:** *Full time students have a 1.5 hour tutorial on sustainability. The session includes a presentation followed by a range of learning activities.*

**Outcome:** *Through group work, learners explore the meaning of sustainability and how it relates to their everyday lives, areas of study, health and well being, economic well being and communities they live and work in.*

#### Questions to consider

- Do you include SD as part of tutorials?

## 7.2 Short courses

ESD has been used as a driver by institutions to develop new short courses and build stronger links with employers and the local community. Short courses are a useful way to introduce SD, recruit new learners and attract revenue.

#### **Examples include:**

**Organisation:** *Derbyshire Adult and Community Education Service (DACES)*

**Approach:** *DACES deliver a range of heritage building skills taster and full accredited courses through their College of the Peak (CotP). Courses include “Walls for the Future” on which Entry to Employment ( E2E) learners take part in dry stone walling projects delivered in conjunction with the National Stone Centre and the Dry Stone Walling Association. Other courses include Lime Rendering, Straw Bale Building and Timber Frame building. Also at DACES adults with learning difficulties access courses such as Grow Great Grub, an accredited course, which enables learners to look at the best ways of growing plants, including composting and recycling.*

**Outcome:** *A wide range of practical courses and approaches enable students to see and engage in sustainability in action.*

**Further Education Institution:** *Bedford College*

**Approach:** *Bedford offers an extensive range of short courses for industry in solar water heating, solar electricity, heat pumps, rainwater harvesting and under-floor heating. Environmental Awareness and Sustainability courses are offered as compulsory additional courses to learners on full time programmes in a range of*

curriculum areas across the college. A recent collaboration with a local company, Dimplex, has led to the installation of air source heat pumps at the Plumbing Centre, with ground source heat pumps to follow. These will be used to develop and deliver short courses.

**Outcome:** Through successful partnerships, regional sustainability priorities are identified and addressed by developing and delivering relevant training to build industry's capacity to respond. For example, if the UK is to meet its energy targets, there will be a need to train 40,000 renewable energy systems installers within the Eastern Region alone. Also, many households in East Anglia lack access to mainline gas so alternative technologies are needed to meet their energy needs.

**Further Education Institution:** Somerset College,

**Approach:** Through its ground breaking Genesis Centre, Somerset College has been delivering sustainable construction, Continuous Professional Development short courses to the industry and wider community since September 2005. In order to ensure that the course content remains current and of relevance to clients and practitioners alike, guest speakers from the industry provide case studies from the new generation ground breaking builds on each of its programmes. In addition to the College's (Higher Education provision, the Genesis Project has also pioneered short duration, accredited, training for micro small and medium enterprises (SMEs) working in the renovation and refurbishment sector. Courses have been run, nationally, for a variety of organisations including the Federation of Master Builders, ConstructionSkills and Exmoor National Park Authority.

**Outcome:** Having designed and built the first dedicated sustainable construction education and training centre of its kind in the country, the Genesis team has been able to draw on the experiences, both good and bad, of attempting to meet the sustainable construction agenda and use these experiences to help inform its short course programme.

#### Questions to consider

- Do you explore short courses you could develop with a sustainability theme?
- Do you speak to local businesses about mutually beneficial courses and activities?
- Do you seek to widen your local networks to bring in more funding and expertise from outside?

### **7.3 Key skills and Skills for Life**

Key skills and Skills for Life provide an easy way to introduce the subject of SD and build programmes around environmental and social issues.

Key skills are the skills that you need in order to operate confidently and successfully in school, college, university, work, training, and life in general. The skills which

include, communication, working with others and problem solving, are ideal vehicles to discuss sustainable development at a principle and practical level.

**Examples include:**

**Further Education Institution:** *Bedford College*

**Approach:** *Alternative energy is embedded into the delivery of Key Skills Application of Number at Bedford College's Vehicle Training Centre. A Key Skills assignment compares the cost and energy efficiency of a range of alternative energy technologies.*

**Outcome:** *This is a perfect example of incorporating sustainability into the delivery of Application of Number.*

**Further Education Institution:** *City of Plymouth College*

**Approach:** *The college has developed a scenario to support communications skills whereby students must imagine they have an interview at a local car company which is keen to develop alternative energy source vehicles. The essay topic asks them to discuss the advantages and disadvantages of such technologies and any lifestyle changes necessary to support these kinds of developments.*

**Outcome:** *Encourages students to research and consider sustainability issues in a way that is directly relevant to their chosen career and future prospects.*

**Organisation:** *Derbyshire Adult and Community Education Service (DACES)*

**Approach:** *DACES Skills for Life programme has included SD in a variety of scenarios, including groups of learners writing poetry about recycling, cloze and comprehension exercises and looking at the different purposes of text. Speaking and listening skills can also be targeted through discussions which relate to everyday life. For example in Skills for Life in Derbyshire a group of young mothers debated the merits of the different kinds of nappies, the impact of disposable nappies on landfill and the alternatives.*

*In maths lessons learners have compared data and made graphs and pie charts based upon energy consumption and food waste and have measured their own carbon footprint.*

**Outcome:** *These tasks lead naturally to interesting discussions amongst learners and tutors which enrich the teaching and learning experience.*

Questions to consider

- Do you build ESD into Key skills and Skills for Life assignments?

## 7.4 Projects

Projects are a popular way of bringing SD learning to an institution. The projects can be as part of a course or an institution-wide initiative. Projects are a good way to encourage cross-discipline working and links with businesses, other institutions and the local community. Some of the examples take advantage of a particular opportunity or on-site facility. One step might therefore be to think about what

opportunities exist in your infrastructure, partnerships or current developments as an institution.

### **Examples include:**

**Further Education Institution:** Lancaster and Morecambe College

**Approach:** Lancaster and Morecambe College is taking part in the Enercities project. This is a European-funded project led by a Dutch college and Dutch software company. They are developing a SIM City-type game based around sustainability. In particular it covers energy consumption, energy savings, renewable energy and energy and the environment. As the only UK partner, Lancaster and Morecambe College will pilot the game with its students and provide feedback on their responses. Once the development of the game is complete the college will be responsible for disseminating the results as widely as possible along with organising a conference to promote the work.

**Outcome:** Promotes cross-institutional working and engages the students with issues of sustainability through a medium they can relate to and share with others.

**Further Education Institution:** Bedford College

**Approach:** Bedford College's Centre for the Arts worked with Bedford Borough Council's Climate Change Officer to organise a climate change exhibition. HND Fine Art and BTEC ND Graphics students were given the brief of illustrating the impact of climate change on Bedford. Some excellent pieces of work were produced, which were displayed at the Exhibition. Students' work was then taken and displayed at the Town Hall foyer for a further two weeks. These are now on display at the College's South Bank Arts Centre. Bedford College also engages students from across the college in sustainability initiatives through competitions leading up to its annual Sustainability Day. Students receive prizes for a variety of categories devised around sustainability initiatives in each academic area. Examples include best design, best art work, or outstanding progress on the additional Sustainability or Environmental Awareness qualifications.

**Outcome:** Students have the opportunity to explore sustainability issues within the curriculum and have their work displayed and seen by the wider community.

**Further Education Institution:** Somerset College

**Approach:** At Somerset, all first year National Diploma Art and Design students were asked to make a puppet from discarded materials that represented themselves and to bring it in on the first day of their course. The puppets were put on display together with facts about humanity based on the idea that the world's population was shrunk to a village of 100 people. Issues such as equality and diversity, the environment and social and economic justice were addressed and the participating students were invited to add to the exhibition with facts that they found themselves.

**Outcome:** The students loved to see each other's work on display. The combination of students work with informative facts worked really well. It made it easy for the students to engage with the facts.

### Questions to consider

- Do you consider opportunities in existing projects to think about SD?

## 7.5 Community as a learning resource

Forging links with the local community can bring rich and interesting learning opportunities on SD issues. It also provides the opportunity to focus on issues that affect the learners and their families directly. Too often SD learning is focused on global problems and challenges. Many of these issues are reflected in the communities we live in so it's a good approach to start here.

### **Examples include:**

#### **Further Education Institution:** *City of Plymouth College*

**Approach:** *The students were asked to weigh sustainability issues against the creation of jobs, the commercial impact on the local community, the impact on building skills within the local community and the local desire for new construction to take place. The study examined the various approaches that can be taken towards creating sustainable construction both locally and more widely.*

**Outcome:** *This approach embeds the local community into the construction curriculum with the use of case studies that present a viable real world scenario to the students.*

#### **Organisation:** *Derbyshire Adult Community Education Service*

**Approach:** *Derbyshire have set up projects to improve cooking skills and nutrition in targeted wards where there are health inequalities, in partnership with the Primary Care Trust. These projects have developed courses looking at food waste and how to use leftovers, as well as emphasising the benefits of using local produce, eating less meat and choosing foods with low food miles.*

**Outcome:** *This approach uses a multi-disciplinary approach to tie in sustainability, health and economic issues to produce real benefits and to challenge inequality.*

#### **Further Education Institution:** *Hadlow College*

**Approach:** *Hadlow College assisted in setting up a low carbon community with the adjacent village. The local ties are seen as a hugely important opportunity to generate a low carbon sustainable community. The college has created 'grower groups' – where college land has been set aside for local residents, staff and students to collaborate in the joint production of fruit and vegetables. The college hopes to spread the concept of 'grower groups' to the wider community.*

**Outcome:** *This is a relevant, real-life project, utilising many of the skills the students would have to otherwise have to learn in a less engaging environment.*

### Questions to consider

- Do you explore the sustainability issues in your community?

## 7.6 The workplace as a learning resource

Not using the space and facilities around you is a classic missed opportunity in Further and Higher Education. Often the facilities or estates teams have long been implementing new environmental technologies, reducing waste and increasing recycling but this is seldom referred to by tutors within the institution. Whether it is a new construction project, grounds maintenance or a simple refurbishment activity, the work environment can be a wonderful learning resource.

### Examples include:

#### **Further Education Institution:** Somerset College

**Approach:** Somerset College's Genesis Centre is an award-winning sustainable building used for the development and delivery of learning programmes. For more information please visit <http://www.genesisproject.com/quickstart/index.php?id=227>

**Outcome:** The centre is used as a tool for sustainability education in a range of ways. The building was constructed to enable an examination of the various techniques employed. A range of activities and continuous professional development events are also run for external organisations to view and use the state-of-the-art sustainable building.

#### **Further Education Institution:** Hadlow College

**Approach:** Hadlow College is building a climate change business centre. This is a South East England Development Agency funded project to build a centre using sustainable construction methods on the farm site. The space is configured for small meetings and curriculum delivery.

**Outcome:** The purpose of the business centre is to demonstrate the use of best practice in construction, minimising emissions and to be as thermally efficient as possible. It is envisaged local residents will also use the facility.

#### **Further Education Institution:** Wiltshire College

**Approach:** At Wiltshire College animal care and management students have to conduct an environmental audit of the Animal Centre using a list of questions which helps them to increase and explore environmental concerns.

**Outcome:** This approach allows them to analyse an environment similar to that in which they can expect to work once their training is complete. In this way the training is experiential and directly relevant to them and their learning. It also ensures environmental targets for the centre are monitored by the students themselves. The questionnaire covers energy, waste, water, transport and pollution.

A similar approach could be adopted with other learning environments. Hotel and catering students could audit kitchen and restaurant areas for instance or business studies students an office area within the institution.

#### Questions to consider

- How often do you speak to your estates or facilities team about sustainability in the college?
- Have you identified potential learning opportunities in how the institution is managed e.g. through estates management, IT procurement, on-site restaurant/café, procurement of paper and stationery?
- Do you look at your future plans within the institution to see if there are learning opportunities?
- Do you explore opportunities for cross department or cross faculty collaboration?

### **7.7 Enriched Curriculum**

Enriching the curriculum offers an ideal way to help tutors to develop and apply a better understanding of SD in what and how they teach. Potential topics range from the general, such as food miles and waste, to the more specific, such as the use of recycled materials in ceramics etc. Tutors can start by maximising small opportunities that are already within their subject expertise, their existing general knowledge (what climate change is for example) or even their experience at home (recycling, composting etc). It enables the workforce to have a go and build from there.

If, as institution, you run an Enrichment Programme what opportunities exist to build ESD into it in some way? Can you add a new activity such as an ESD short course or show SD themed films? Or could you adapt an existing activity such as including a SD themed book in a book club or run craft activities using only recycled materials?

#### **Examples include:**

**Organisation:** Derbyshire County Council Adult and Community Education Service  
**Approach:** *Childcare learners have been encouraged and supported in linking qualification criteria to workforce skills through researching and producing ESD wall displays which support and highlight local and national initiatives. The arts and crafts curriculum has been successfully enriched by focussing sections of the course on ESD. Examples include Jewellery and Silver-smithing where a section on using recycled items is incorporated into existing criteria. Learners set small pieces of tile into silver or use used drink cans as material for bracelets. In ICT learners are taught strategies to avoid printing and paper wastage, are made aware of the energy cost of leaving equipment on standby and directed to SD website content.*

**Outcome:** *Derbyshire County Council Adult and Community Education Service has a policy of embedding ESD across it's whole curriculum in a way that combines social, economic and employability skills.*

**Further Education Institution:** *Somerset College*

**Approach:** *On World Environment Day Somerset College launched a competition to encourage students and staff across the college to develop awareness about sustainability issues within their own subject areas.*

**Outcome:** *Entries ranged from designing an environmentally friendly eco-camping site, recycling, growing food, website design and designing an electric car that looks cool and attractive for the more sporty market..*

**Further Education Institution:** *Bedford College*

**Approach:** *The annual Low Carbon Future event at Bedford College gives students the opportunity to interact with employers, learn about the latest energy and sustainability technologies, attend seminars and identify employment opportunities within a low carbon economy. Similarly, Sustainability Day is an annual event that engages students in all curriculum areas.*

**Outcome:** *The event provides opportunities for students to meet with the representatives of groups such as Bedfordshire Climate Change Forum, Friends of the Earth and others. In the weeks and months building up to the event student groups participate in competitions such as 'Environmental Awareness Campaign' and 'Make and Sell Using Recycled Materials'. Awards are given to the winners of these competitions and those making outstanding progress on sustainability courses. From 2009, Sustainability Day will be held at the same time as World Environment Day.*

## **8.0 Summary**

This research has shown us that there are some simple and common sense approaches to embedding SD into your current teaching practices using the existing curriculum. Whilst the research showed us that ESD is increasing it is by no means standard practice amongst learning providers. This will no doubt change as more attention is paid to SD by Ofsted and the range of good practice is more widely disseminated. We hope this document has stimulated some thoughts on approaches that can be taken to move this forward in your institution. If you have examples of your progress that you would like to share with others please feel free to contact us.

## **Appendix 1**

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## Appendix 2

### Current Practice - Audit Tool

Please tick the most appropriate response for your institution, the more open and honest you are in your assessment, the more useful this exercise will be!

- 1 – Always
- 2 – Often
- 3 – Sometimes
- 4 – Rarely
- 5 – Never

Question	1	2	3	4	5
1					
2					
3					
4					
5					

	mutually beneficial courses and activities?					
6	Do you seek to widen your local networks to bring in more funding and expertise from outside?					
7	Do you build ESD into Key skills and Skills for Life assignments					
8	Do you consider opportunities in existing projects to think about SD?					
9	Do you explore the sustainability issues in your community?					
10	How often do you speak to your Estates department about sustainability in the college?					
11	Have you identified potential learning opportunities in how the institution is managed e.g. through estates management, IT procurement, on-site restaurant/café, procurement of paper and stationery.					
12	Do you look at future plans within the institution to see if there are learning opportunities?					
13	Do you explore opportunities for cross department or cross faculty collaboration?					

If you would like to discuss any of this further please contact – Jimmy Brannigan, ESD Consulting Ltd – [jbrannigan@esdconsulting.co.uk](mailto:jbrannigan@esdconsulting.co.uk)

### Appendix 3 - Further resources and links

Please find below further resources and links used by Somerset College in their teacher training programmes.

<http://www.youtube.com/watch?v=JlhaF93i4tc>

This link takes you to a powerful 2 min 23 sec Youtube clip entitled ‘A Wonderful World?’ Positive images are interspersed with sustainability issues in terms of climate change, social issues, conflict, etc with Louis Armstrong singing ‘A Wonderful World’ in the background. We use it to introduce students to these issues when introducing the module with a learning outcome relating to ESD.

<http://www.teachers.tv/video/24992>

This is a 15 min video on Teachers TV which gives an illustrated look at the potential impacts of climate change, focusing on examples from around the globe. Environments including African drought plains and the diverse Bangladeshi topography are analysed. We also explore the impact that climate change is having on polar bears in the Arctic and coral reef ecosystems in the tropics. This programme makes the point that though such threats to the environment are real their final impact is not inevitable, encouraging students to think about and discuss what should be done.

<http://www.youtube.com/watch?v=y9dz3wUn818>

This is a powerful 1min 43 sec Youtube clip entitled 'The Power of One'. One of the main concerns from students is wondering how they can make a difference as an individual, and this helps to show the difference that individuals have made.

<http://www.wwflearning.org.uk/data/files/linkingthinking-302.pdf>

We have developed activities from this excellent resource from the World Wildlife Fund ie encouraging our Cert Ed/PGCE students to focus on the sustainability of resources and to develop their critical thinking or 'linking thinking'.

[http://www.youtube.com/watch?v=4M2fwbq3v5s&feature=related%20\(ALO6\)](http://www.youtube.com/watch?v=4M2fwbq3v5s&feature=related%20(ALO6))

This is a 10 min Youtube clip which explains how the Earth Charter was developed – we give this and the next two sites as a directed study exercise.

[www.esdtoolkit.org](http://www.esdtoolkit.org)

This is an Education for Sustainable Development Toolkit developed by the University of Tennessee,

<http://www.unesco.org/education/tlsf>

Teaching and Learning for a Sustainable Future (A UNESCO site) This is a multimedia, interactive professional development program with materials, exercises, and links.