

The Dorset coast is a world-famous educational resource and is internationally renowned for showcasing some of the most spectacular rock exposures, coastal landforms, coastal landslips and fossil sites in the world. Historically, the coast has played a key role in the study and history of the Earth Sciences through key figures such as Henry de la Beche and Mary Anning. The coastline and marine environment offers teachers and lecturers a multitude of opportunities to deliver teaching and learning through innovative and exciting approaches.

## Education for Sustainability

Over the past decade there has been an increase in public and political debate about environmental issues, sustainability and the growing challenges of how our society is adapting to climate change. Children and young people face an uncertain future where it is difficult to predict the consequences of how the environment and its resources are being managed for their future. Sustainability can be seen as the ultimate goal of achieving a global ecological and social balance where we are all able to live comfortably without compromising the quality of the environment on which we all depend and the lives of future generations. In this context Education for Sustainability is what schools are doing now to achieve this. Through enriching educational experiences, schools are enabling children and young people to see the links between themselves and the wider natural and social environment and to adopt behaviour and practices that contribute to a more environmentally sustainable world. Education is now more about supporting children and young people to think more radically and consider how they may play a role in modelling their own futures. For the Dorset coast, such an educational approach comes at a critical time where we need to consider the impacts of future climate change on how the coast and in the marine environment will evolve and

any impacts on those communities that live and work along it.

## Key Government Education Policies

A critical part of increasing awareness and understanding of the values of the Dorset coast is to encourage and support initiatives that help children and young people to learn effectively inside and outside of the classroom. In particular, there is strong evidence that good quality learning outside the classroom adds much value to classroom learning – this is recognised by central and local Government through various policies including:

- Every Child Matters
- Learning Outside the Classroom Manifesto
- The Dorset and Devon Children and Young People's Plan.

Partners wishing to work with children and young people should be guided by the nature of these policies in order to set out a framework to engage effectively with schools.

## Every Child Matters

Every Child Matters is a set of reforms supported by the Children Act 2004. Its aim is for every child,

whatever their background or circumstances, to have the support they need to:

- Be healthy
- Stay safe
- Enjoy and achieve
- Make a positive contribution
- Achieve economic well-being

This means that every Local Authority should be working with its partners, through children's trust partnerships, to find out what works best for children and young people in its area and acting on it. It is compulsory for Local Authorities to involve children and young people in this process, e.g. through youth parliaments, school councils. The five objectives can be applied to education on the Dorset coast as follows:

- **Be Healthy**

Across the Dorset coast, there are numerous organisations that support and promote a wide variety of education programmes that encourage children and young people to learn outside of the classroom. Opportunities can range from guided walks with associated activities such as recording of wildlife, to fossil collecting and rock identification. By allowing children to explore their outdoor environment safely, their perceptions of the

countryside and ways in which a healthy lifestyle may be maintained are broadened.

- **Stay Safe**

A key element of enjoying the coastline is learning how to stay safe, even in an environment that might seem unfamiliar. For many children who visit the Dorset coast, hiking along the cliffs or rummaging about for fossils on the beach is a new activity that may not pose obvious dangers. However, walking across weak cliffs, ignoring tidal times or hammering rocks without safety goggles can pose serious dangers to visiting groups unaware of these issues. Across the coast, there are a number of outdoor education centres and heritage centres to ensure that the safety and welfare of visiting groups remains a high priority.

- **Enjoy and Achieve**

The Dorset coast offers a rich spectrum of topics which can contribute across the curriculum to assist pupils to reach the high educational standards as measured by tests and examinations. Learning themes include sustainability, tourism, and heritage.

- **Make a Positive Contribution**

Through creating opportunities that offer exciting and relevant ways through which to engage with coastal sites, stakeholders can offer ways in which children can support their community and environment. This positive feedback mechanism instils a sense of ownership and pride which is

crucial for maintaining law-abiding and positive behaviour particularly out of school.

- **Achieve Economic Well-Being**

Children need support and training to ensure that they have the skills necessary to progress effectively through their lives and careers. Heritage centres and volunteer organisations along the coastline currently offer opportunities for young people to gain practical skills that are often not learnt in the formal learning environment. These can range from hedge laying to greeting members of the public at a visitor centre.

#### **Learning Outside the Classroom (LOTC)**

Learning Outside the Classroom is when young people move outside their immediate and accustomed environment to learn from first-hand experiences. The coast and countryside of Dorset offers a unique learning environment for children and young people since it is one of the most spectacular outdoor learning environments in the world. In addition, there are numerous education and visitor centres across the coast where schools can access high quality and engaging outdoor learning programmes.

#### **Dorset County Council Children and Young People's Plan (2009 – 2012)**

The Plan is being delivered in partnership through The Children and Young People's Partnership (or Children's Trust) to improve the well being of all

children and young people; improving the prospects for their future and redressing inequalities between the most disadvantaged and their peers. Children's Trusts now work in partnership with educational establishments including sixth form colleges, schools and Job Centre Plus.

#### **The Changing Face of Education in Schools**

The ways schools operate in England and Wales has shifted and changed over the last 10 years. In November 2010, the Department for Education published the schools White Paper: The White Paper marks a shift towards school-led school improvement and offers a wide range of opportunities to open up innovative and exciting ways for children and young people to engage with the Dorset coast without being constrained by working through a hierarchical local government based structure. Programmes must fully understand the requirements of learning at each key stage and how any additional experience or opportunities they offer can contribute towards pupil achievement and progression.

- **National Curriculum: Key Facts**

State schools in England must teach a range of subjects according to targets set by the National Curriculum. This was established in 1989 to ensure the same standards of teaching and learning across the nation. The National Curriculum for sets out:

- Which subjects should be taught
- The knowledge, skills and understanding that children should achieve in each subject (according to a child's age)
- Targets - so teachers can measure how well a child is progressing in each subject
- How information on a child's progress should be communicated to parents

The National Curriculum is divided into five Key Stages that children progress through during their school life. There are targets that are set at the end of each key stage against which children are assessed.

For each subject area at each key stage, there is a Programme of Study which sets out the essential matters, skills and processes which must be covered

Early Years and Foundation Stage	Aged 0 - 5	Reception, Nursery, Children's Centres
Key Stage 1	Aged 5 - 7	Years 1 and 2
Key Stage 2	Aged 7 - 11	Years 3, 4, 5 and 6
Key Stage 3	Aged 11 - 14	Years 7, 8 and 9
Key Stage 4	Aged 14 - 16	Years 10 and 11

in schools. The attainment targets describe the range of knowledge, skills and understanding which pupils are to master as they progress through school. For example in the Programme of Study for Geography at Key Stage 1 and 2, the key knowledge,

skills and understanding that children must learn are:

- Geographical enquiry and skills
- Knowledge and understanding of places
- Knowledge and understanding of patterns and processes
- Knowledge and understanding of environmental change and sustainable development

Geography teachers may choose to adopt a creative curriculum approach whereby a subject area (like the Dorset coast) may be used across a range of programmes of study and key stages (e.g. science, geography, history and citizenship). At a primary level, teachers are encouraged to teach either about rivers or coasts at least once a school term. Therefore in many cases a school will study the coast on a cyclical basis every 2 years. At Key Stage 4, the Dorset coast has been used as a case study for GCSE Geography for many years.



### Higher Education

Dorset has many higher education establishments who make great use of the coast for fieldwork and/or for visits to heritage facilities. Many Dissertations use the subject of the Dorset coast or its marine environment as topics and many students use coastal stakeholders as a way of obtaining relevant information. These dissertations are of benefit to both the student and to local stakeholders who can use these studies in their work and research.

Dorset's Bournemouth University runs a number of courses under the geography and environmental subject area. This includes a marine and conservation FdSc. They have courses in Marine Archaeology, marine taxonomy and GIS for environmental management.

Kingston Maurward college offer courses relating to environmental science, marine and land use practices as well as using the coast for field studies.

Other universities in the south, such as, Portsmouth, Plymouth and Southampton offer a range of coastal and marine courses and many use the Dorset coast and its inshore waters for field work.

Scientific research, both at undergraduate and postgraduate level, has been carried out by many other institutions, however, the results of these studies are difficult to locate as they reside in a wide

variety of academic establishments throughout the UK.

### Dorset's outdoor coastal education

Dorset's rich and varied coastline provides an opportunity to study a wide range of subjects relating mainly to geology, geography, biology and environmental science subjects. The coast is also utilised for a variety of outdoor and leisure pursuits, for students from Key Stage 2 (ages 7-11) through to GCSE and A level. Examples based on Dorset's coastline appear frequently as case studies within a number of Examination Board syllabuses. Chesil Beach has probably been referred to in more examination questions than any other geomorphologic feature in the world.

As a result, each year the Dorset coast and countryside hosts in the region of 250,000 students from all educational levels and abilities, from institutions and organisations both within and outside the county. Many schools appear to have a set itinerary of sites to be studied whilst in Dorset, some of the most popular sites include, Studland, Swanage, Brownsea Island, Kimmeridge, Lulworth Cove, Durdle Door, Chesil Beach, Portland and Charmouth.

### Trends

- Pressure on the coast from education visits and research is likely to increase.

- Many teachers do not have the time to learn about a specific subject area (like coastal defences), gather technical information and source high quality copyright free images, therefore there needs to be more liaison/projects to allow stakeholders and teachers to work together.

### Contributions to the paper:

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