

Programme 3: Mourne

Geography

BROADCAST DATES

BBC2 NI 10.30-10.50AM

Programme	Title	Broadcast Date
3	Mourne	Tuesday 9 th May 2006
4	Lough Neagh	Tuesday 16 th May 2006

PROGRAMME 3: MOURNE

This programme looks at the natural environment of the Mourne and finds out about some of the human activities connected with the Mourne.

LEARNING OUTCOMES

This unit will support the revised Northern Ireland Curriculum for Geography at KS2. It will expand their awareness of people and places and how people use the earth's natural resources close to home.

By the end of the programme the pupils will have learned about:

- Enquiry skills - encouraging observing, recording, presenting and discussing.
- Map work skills - using plans, photographs and maps at different scales and for different purposes;
 - Using a key of O.S. symbols to identify some familiar features;
 - Using the contents and index in an atlas to locate places - e.g. within the six counties of Northern Ireland.
- The importance of natural resources;
 - The effect of the use of a natural resource and the steps which can be taken to conserve the environment;
 - How the use or demand for a resource in one place can harm the environment in another place.

ABOUT THE PROGRAMME

In the programme, Shauna Lowry, the presenter, looks at the natural environment of the Mourne and finds out about some of the human activities connected with the Mourne.

The programme is divided into seven sections which are:

The Rocks of the Mourne

The Mourne are comparatively "young" mountains and are composed of hard granite rocks. They developed when a vast block of ancient shale subsided deep into the earth's crust. As it did so, the molten granite welled up in stages around the sides of the descending block and filled in the "roof cavity" left in its place. Their formation complete, the granite Mourne were still concealed

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beneath an overlying mantle of the original shale which has almost all since gone; worn away by millions of years of rain, ice and running water.

Since their formation some 50 million years ago, periodic climatic changes have altered the appearance of the mountains. Erosion and deposition occurred during a series of ice ages. Ten thousand years ago the last ice sheets retreated depositing vast quantities of sand and gravel in their wake. This covered the coastal plain to a depth of many feet and included countless granite boulders swept down from the mountains. At higher levels the shape of many valleys was modified by the advancing ice. This produced a striking "U" shaped profile which in recent times has proved ideal for the creation of reservoirs at Ben Crom, the Silent Valley and Spelga.

In the programme Shauna looks at the hard granite rocks of the Mourne. She shows us how the rocks are made up of quartz crystals that sparkle in the light. She also looks at the distinctive smoky quartz crystals, known locally as "Mourne diamonds" that are to be found in places like the Diamond Rocks.

Water

Shauna visits the Ben Crom and Silent Valley reservoirs in the heart of the Mourne and tells us something about how water gathered there is brought to consumers in Belfast and County Down. Ben Crom and Silent Valley reservoirs gather water from a mountain catchment area that extends over most of the High Mourne. The area has an annual rainfall of around 70 inches (1760 mm) which provides pure and unpolluted water which is piped North to Belfast by gravity.

The lower Silent Valley dam was completed in 1933 after prolonged difficulties created by an unexpected depth of glacial material. This created a need for deep excavations. This reservoir draws its supply from the catchment area of the Kilkeel river. It also collects water diverted from the Annalong Valley through a 2.25 mile (3.6 km) tunnel that runs through the solid rock of Slieve Bignian.

In 1957 an additional dam was built across a "U" shaped valley at Ben Crom. This dam is composed of concrete, unlike the earth and rock construction of the Silent Valley dam. Presently the catchments of the Silent and Annalong valleys provide about 400,000 consumers with up to 30 million gallons (130 million litres) of water every day. Nowadays, computers help to monitor the quality, flow and distribution of the water.

Facts about water use

There is increasing water use year by year due to rising living standards and greater leisure facilities. On average each person in Northern Ireland uses 28 gallons (128 litres) of water each day.

For instance:

- Automatic washing machine uses 22 gallons (100 litres)
- Bath uses 17 gallons (77 litres)
- Dishwasher uses 11 gallons (50 litres)
- Shower uses 6 gallons (27 litres)
- WC uses 2 gallons (9 litres)

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- Drinking and cooking accounts for only 1.50 gallons (6.8 litres) per person daily.

Farming

We visit one of the many farms around the fringes of the Mourne. This is a mixed farm run by Donal Hughes which lies between Annalong and Slieve Bignian.

We see Donal gathering a flock of sheep together. His dog Glen has trouble controlling the sheep because the ewes have young lambs to protect. Donal brings his sheep to the farm yard where he shears them. This is a job that he does at the beginning of every summer. Usually, he does the job with electric shears but when the wool is wet he works with hand shears. When the heavy fleece is cut off the sheep is cooler for the warmer summer weather. Donal sells the wool when he has enough fleeces gathered together.

Donal also keeps young bullocks that he feeds silage to fatten them up for sale. His milk herd graze in the field and are brought indoors everyday to be milked. The milking parlour is mechanised and everything has to be kept spotlessly clean to prevent the spread of infection. The cows eat high nutrition feed while they are being milked.

Stone Walls

There are a great many granite boulders throughout the Mourne area which have to be cleared away to create fields. Many of the boulders are built up into stone walls which can be seen throughout the area.

We see Phelim Doran rebuilding a stone wall on a farm near Annalong. Phelim has been working with stone for all of his adult life. He used to do all the work by hand but now has a tractor to help him shift the larger rocks. The largest stones are placed at the bottom of a wall to support all of the smaller ones. The walls taper up to the top.

Traditionally stone was also used to build cottages and other farm buildings. We visit Annalong to see the Corn Mill and the harbour which are both built of granite.

Fishing

Fishing has been the main industry in Kilkeel for generations and today about 100 boats work out of the sheltered harbour.

When the boats are in harbour the fishermen make repairs, refuel and take on new supplies before venturing out once again into the Irish Sea. Fishing trips can last for up to 5 days. Nets are trawled along the muddy sea bed to catch prawns and many other varieties of fish such as whiting, cod, plaice and sole. The catch has to be sorted, washed and packed into boxes covered with ice before returning to Kilkeel for sale. They are auctioned off to the highest bidder.

Once sold, fish such as whiting and cod are taken to local factories where the bones and head are removed in a process known as filleting. The boneless fillets of white fish are then sold to the public at fishmongers' shops and are also used by fish and chip shops in Northern Ireland and the rest of the UK. Prawns are also bought by local factories in Kilkeel where they are made into

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scampi. Fish such as flatfish and monkfish are more valuable and often fetch high prices and may end up in expensive restaurants in France and Spain.

Forestry

There are several different forest parks in the area including Castlewellan and Tollymore which are both close to Newcastle.

Castlewellan was originally a private estate and it contains a great variety of different sorts of trees. It also has a lake and camping ground and is a very attractive place to visit. In parts of Castlewellan Forest Park trees are grown for commercial use. We see a forester cutting down a larch tree as part of a planned programme of re-afforestation. The felled trees are cut into lengths that will be sold to sawmills. The best quality timber is used for building houses. Smaller logs are used for the manufacture of boxes, pallets and fencing.

In the programme we also see damage caused to sections of Annalong Wood by a fire which started during the Easter holidays of 1995. The burnt trees will have to be cut down and the area replanted before a new cycle of tree growth can begin again. It could be a further 40-60 years until the trees reach maturity again. We don't know whether the fire was accidental or was started deliberately but the incident illustrates how careful we must be with a very valuable resource.

Holidays

Newcastle is one of Northern Ireland's premier holiday resorts and people have been coming to the town for over 100 years to enjoy the sea air and mountain scenery. Many like to stay in hotels or traditional Bed and Breakfast accommodation but nowadays many others camp or stay in caravans. The nearby forest parks provide well managed facilities with all the facilities of home. The forest parks also provide open space for walking although these areas are vulnerable to environmental pollution. In the programme we see rubbish left near waterfalls in Donard Park. This emphasises the fact that it is the responsibility of all of us to look after our environment so that everyone can enjoy their holiday in "the Kingdom of Mourne"

KEY WORDS USED DURING THE PROGRAMME

Granite, Reservoir, Catchment area, Fleece, Harbour, Forestry, Environment

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1. CLASSROOM ACTIVITIES – Before the Programme

Activity	Tasks	Worksheets	Relevance to NI Curriculum
Investigating the local environment	<p>Discuss the meaning of the Keywords</p> <p>Discuss the location of the Mountains of Mourne in relation to your school.</p> <p>Discuss if anyone in the class ever been to the Mourne area. What would they expect to see when they got there?</p> <p>Look at the maps of Northern Ireland and of the world. Locate Northern Ireland and the Mountains of Mourne respectively.</p>		<p>Talking and Listening Taking part in discussion – obeying the conventions of discussion.</p> <p>Geography Enquiry skills-consideration of the local environment</p> <p>Mapwork skills -locating places and features on a map</p>

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Activity	Tasks	Worksheets	Relevance to NI Curriculum
Investigating the use and supply of water	<p>Draw a diagram showing all of the different uses to which water is put in the home.</p> <p>Discuss the problems which engineers might face in trying to supply water to an area that is a considerable distance away from the original source. Refer to the pictures in the programme showing Ben Crom dam and the entrance to the Bignian tunnel.</p>		<p>Geography Observing, recording and presenting information</p> <p>Talking and Listening Taking part in group and class discussion sharing, responding to and evaluating ideas</p>

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Activity	Tasks	Worksheets	Relevance to NI Curriculum
Investigating the subject of farming	In the farming section, look at the pictures of the various animals that Donal has on his farm and discuss what it would be like to run a farm. What would be the advantages and disadvantages?		Talking and Listening Taking part in group and class discussion sharing, responding to and evaluating ideas Geography What people do- Understanding the different jobs people do to provide goods

Activity	Tasks	Worksheets	Relevance to NI curriculum
Investigating Forestry	<p>Find a map of the Mournes area and locate the various areas of forest. Does the class think that it is a good idea to plant forests?</p> <p>Where would they locate new ones and what sort of trees would they plant in them?</p>		Geography Map skills- locating features on a map The Environment- land-use, natural resources and conservation Talking and Listening Taking part in group and class discussion sharing, responding to and evaluating ideas. Making decisions using objective criteria.

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Activity	Tasks	Worksheets	Relevance to NI Curriculum
Discussion of holiday destinations	In the programme different locations for holidays are shown. What would the differences be between a holiday spent in the resorts of Newcastle and a forest park like Castlewellan or Tollymore? Where would the class prefer to spend their holidays?		Geography The Environment and tourism Talking and Listening Talking with confidence and developing ideas. Showing the ability to explain views and opinions.

Activity	Tasks	Worksheets	Relevance to NI Curriculum
Considering conservation of the environment	In the programme there are pictures of a forest fire and rubbish left behind by visitors to Donard Park. Discuss what practicable measures could be taken to protect and enhance the environment.		Geography The Environment -understanding how people affect the environment - issues associated with conservation of the environment Talking and Listening Talking with confidence and developing ideas. Showing the ability to explain views and opinions.

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RESOURCES

- Visitors guide to counties Armagh and Down

<http://www.armaghanddown.com/>

- A broad range of photographs of the Mourne is available to view on

<http://www.bbc.co.uk/northernireland/yourplaceandmine/gallerypop/mournes/index.shtml>

- The Mourne Heritage Trust website

<http://www.mournelive.com/>

- The Agriculture and Rural Development's Forestry website

<http://www.forestserviceni.gov.uk/home.htm>

- Newry and Mourne Councils' visitor's guide

http://www.newryandmourne.gov.uk/tourism/activities/forest/silent_valley.asp