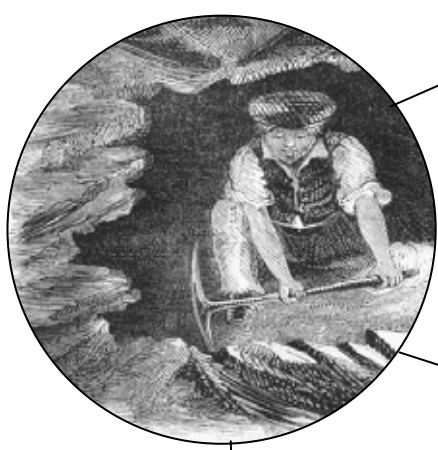


Moira Furnace



EDUCATION PACK



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MOIRA FURNACE MUSEUM EDUCATION PACK

Moira Furnace is one of the best examples of an early 19th Century iron-making blast furnace anywhere in Europe. It was built in 1804 by Francis Rawdon Hastings, the Earl of Moira, to exploit the wealth of coal and iron ore in the area.

The furnace site includes the museum itself, which is in three parts within the original blast furnace building; restored lime kilns; woodland; and the restored section of the Ashby Canal, complete with narrowboat.

The Moira Furnace site offers a wealth of activities for schools and helps meet National Curriculum requirements in History, Science, Geography, Literacy and Numeracy. The museum has been designed to show how science and industry have shaped the local landscape and the lives of local people. Its resources offer a range of experiences for children at all key stages.

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TEACHERS' NOTES

Moira Furnace is an ideal place for a school visit. It offers a wealth of activities and helps meet National Curriculum requirements in History, Science, Geography, Literacy and Numeracy. The museum has been designed to show how science and industry have shaped the local landscape and the lives of local people. Its resources offer a range of experiences for children at all key stages.

The furnace site includes the museum itself, within the original blast furnace building; restored lime kilns; woodland; and the restored section of the Ashby Canal, complete with narrowboat. There are two parts to the museum:

The Bridge Loft - where the raw materials for smelting were assembled and fed into the top of the furnace. This now houses displays showing how the furnace worked.

The Hastings Room - where the furnace building was converted into cottages after it stopped working. This now houses displays of the working life of the furnace and the history of the buildings on the site. The Hastings Room includes Mary's Parlour - a reconstructed Victorian kitchen. This contains authentic objects giving an insight into the everyday lives of the mining families who lived in the furnace later in the 19th century.

The museum also offers a number of activities that can be combined with the museum experience to provide a full day of educational value. These include:

Victorian washday
Soap making
Bug hunting

All activities and tours are ranger-led. The museum also has its own canal boat which is available for short trips by school groups.

NATIONAL CURRICULUM LINKS

HISTORY

Key Stages 1 & 2

Areas of study include family life, work and leisure from the past in the local area. This includes the lives of significant individuals such as Francis Rawdon Hastings the Earl of Moira, and Joseph Wilkes, a local entrepreneur associated with the construction of the Ashby Canal. The museum's resources particularly support the following units:

Unit 2: What were homes like a long time ago? (Year 1)

The museum offers opportunities to explore people's lives and lifestyles in the Victorian period. 'Mary's Parlour' - a reconstructed Victorian kitchen - contains authentic objects giving an insight into the everyday lives of the mining families who lived in the furnace later in the 19th century. This allows children to identify differences between ways of life at different times. The museum's displays show different ways in which the past is represented and our activity sheets allow pupils to collect information to create their own records.

The museum contributes to the teaching of the Local History Study unit. It covers aspects of the local community over a period of time and illustrates developments in the local community taught in the Victorian Britain unit. Its resources particularly support the following units:



Unit 11: What was it like for children living in Victorian Britain? (Year 5/6)

This pack contains resources that explore housing conditions and the working lives of children in the local mines and on canals in Victorian times.

Unit 12: How did life change in our locality in Victorian times? (Year 5/6)

Moira Furnace is one of the best examples of an early 19th Century iron-making blast furnace anywhere in Europe. Together with the Ashby Canal, which runs alongside the furnace, it played a key part in the industrial transformation of the local area. The museum's 'Hastings Room' - where the furnace building was converted into cottages after it stopped working - houses displays of the working life of the furnace and the history of the buildings on the site. The unusual census material from 1881 for the furnace buildings can be used to explore the living conditions and working lives of families in the area.

Unit 18: What was it like to live here in the past? (Year 3/4)

Moira Furnace is a focal point for industrial change in the past. Its unusual appearance and construction allow considerable scope for observation and recording. Its transition from industrial use to housing is supported by historic photographs and drawings which can be compared with modern photos and observations.

Key Stage 3

The museum meets the requirements for Britain 1750-1900 with an emphasis on industrial change and its impact on the way of life of people in the local area. It particularly supports the following units:

Unit 11: Industrial changes - action and reaction (Year 8)

The Ashby Woulds area was rich in coal and ironstone and the opening of the Ashby Canal made their exploitation a viable proposition. The blast furnace proved to be a failure but coal mining in the area was highly profitable and continued well into the 20th century. The museum's 'Bridge Loft' - where the raw materials for smelting were assembled and fed into the top of the furnace - houses displays showing how the furnace worked and explains the technological processes involved. The furnace site also contains seven restored lime kilns that were built to burn local limestone.

GEOGRAPHY

Key Stages 1, 2 & 3

Moira Furnace gives an abundance of opportunities to study how and why the site has developed, its transport links and changes of use. Together with the developing National Forest and restored Ashby Canal, it also demonstrates environmental preservation and regeneration within a local area. The growth and subsequent decline of the mining industry in the area provide examples of change in economic activity, availability of resources and environmental impact. The museum's resources particularly support the following units:

KS1 & 2, Unit 6: Investigating our local area (Year 3)

KS3, Unit 1: Making connections (Year 7)

KS3, Unit 22: Mining on the internet (Year 9).

SCIENCE

Key Stages 1, 2 & 3

Unit 3C: Characteristics of materials (Year 3)

Unit 9E: Reactions of metals and metal compounds (Year 9)

Unit 9F: Patterns of reactivity (Year 9), Unit 9H: Using chemistry (Year 9)



The museum displays explain the use of raw materials in the iron-making process and demonstrate the relevance of these processes to the manufacture of a range of products. This pack includes a section on the science and technology of a blast furnace and the impact of developments in technology on iron smelting, casting and founding, and the production of quicklime from limestone.

Unit 2B: Plants and animals in the local environment (Year 2)

Unit 4B: Habitats (Year 4)

Unit 6A: Interdependence and adaptation (Year 6)

The furnace site includes woodland, a wildflower meadow and the Ashby Canal. These offer many opportunities for the observation and identification of plants and animals in their natural environment. Additional activities available at the furnace include bug hunting and wildflower and tree identification.

CREATIVITY, CITIZENSHIP & ICT

The museum offers a wealth of material to support reading and writing. There are many characters (from the Earl of Moira to the humblest mine boy) and events that could be used as a basis for descriptive writing. The museum's displays and activity sheets encourage the location and use of information and recording. Many aspects of data handling using the museum's resources will lend themselves to the use of ICT tools.

The materials in the pack do not need to be used in a particular order. Just use the sections that are most relevant to the needs of your pupils. There are lots of opportunities for further work.

Many activities are cross-curricular and will support schemes of work within Citizenship at primary level.

ACTIVITY RESOURCES

The following resources can be used throughout the pack (samples in this section):

Evidence response sheets (general, artefacts and photos)
Storyboard outline
Drawing frame.

These can be photocopied without permission for whole class use.

USEFUL GENERAL WEBSITES

www.bbc.co.uk/history/british/victorians
www.learningcurve.gov.uk/index/snapshots.htm (*The National Archives lesson plans*)
www.headlinehistory.co.uk (*Learning with newspapers*)
www.emsource.org.uk (*Museum and archive resources in the East Midlands*)
www.objectlessons.org.uk (*Evidence from objects*)

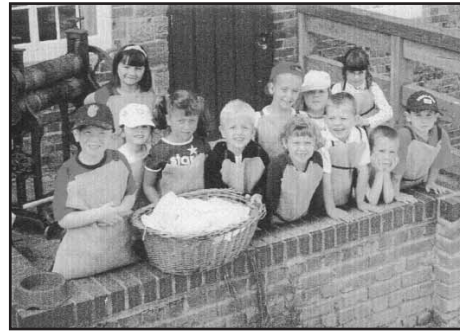


ADDITIONAL ACTIVITIES

Victorian wash day

Groups of up to 12 children are encouraged to participate in a Victorian-style wash day in the 'Mary's Parlour', the miner's kitchen section of the museum.

This activity lasts approximately 30 minutes and includes using a dolly peg, dolly tub, posher, wash board, soap and mangle. (For safety reasons, use of the mangle is demonstrated by staff!) Children are given the opportunity to wash an item of clothing, hang it out and learn about the life of a mining family in late Victorian times.



The Joseph Wilkes boat trip



The Moira Furnace narrowboat is available for use by school groups. A maximum of 10 children and 2 adults can be taken at one time on the boat trip which lasts about 30 minutes. The boat leaves the furnace, turns round at Moira Lock, up to Donisthorpe Country Park and back to the furnace.

Lock trips are available on request. This trip takes 45 minutes each way through the lock to Conkers Basin and then back to the furnace.

Boat trips are usually combined with other activities on the day of your visit.

Pond dipping and bug hunting

This very popular activity involves a small group of children (maximum 10) in analysing pond life.

Magnifying glasses, pens, paper and all dipping equipment are provided. Children are given information sheets to help them identify the creatures found. This activity takes 30 minutes.