

Derwent Valley Mills World Heritage Site: Using Outstanding Universal Value, Values and Attributes in Learning Activities

In December 2001, the Derwent Valley Mills in Derbyshire was inscribed on the World Heritage List. This international designation confirms the outstanding importance of the area as the birthplace of the factory system where in the 18th Century water power was successfully harnessed for textile production. Stretching 15 miles down the river valley from Matlock Bath to Derby, the World Heritage Site contains a fascinating series of historic mill complexes, including some of the world's first 'modern' factories.

This linear World Heritage Site is a thriving community and has many residents living and working within its boundaries. The DVMWHS (Derwent Valley Mills World Heritage Site) management team and its partners have been working to develop the profile of the site with the local communities and linking this learning with an appreciation of **why** it is a World Heritage Site (its Outstanding Universal Value) and increasing awareness of the values of the site and its associated attributes as defined for UNESCO.

This paper focuses on learning activities being developed and delivered for primary school age pupils that include learning opportunities directly linking to the values and attributes of the Derwent Valley Mills.

Derbyshire Environmental Studies Service (DESS) are a partner in the DVMWHS and have supported the learning and education work of the site since its inscription. In early 2012 six new learning 'days' were developed for pupils of Primary School age. These days were designed and delivered by Derbyshire Environmental Studies Service education leaders using three key sites along the Derwent Valley; Sir Richard Arkwright's Masson Mills at Matlock Bath, Cromford Mills and Strutt's North Mill in Belper. These days are in addition to the rich, varied educational offer already available at these sites and aim to directly emphasise and raise awareness of the Outstanding Universal Value of the site and draw directly on the values and attributes associated with it.

Six day-long sessions for schools to book were developed, three for Key Stage 1 (Infants) and three for Key Stage 2 (juniors). Each of the day programmes involves a session at the start which enables pupils to understand what a World Heritage Site is, why they are important, what Outstanding Universal Value is and why the Derwent Valley Mills specifically is a World Heritage Site. Each day then draws on the specific defined 'values' and 'attributes' to provide curriculum linked learning activities on the sites and in the surrounding areas as defined in the table on the following page (See table one).

Following development of these days it was decided that a day specifically for schools within and neighbouring the Derwent Valley Mills World Heritage Site explicitly focusing on the values and attributes might be useful. It is hoped this day of input would form part of a wider 'local history' study for the schools enabling them to understand, value, care and ultimately take action to protect the World Heritage Site that they live within. Georgina Cass (Derbyshire Environmental Studies Service) and John Rogers (DVMWHS Learning Coordinator) developed the day outlined overleaf and delivered it with pupils from Cromford Primary School.

Below left: Sketching the attributes in the Derwent Valley landscape.

Below middle: What we value in the Derwent Valley Mills World Heritage Site.

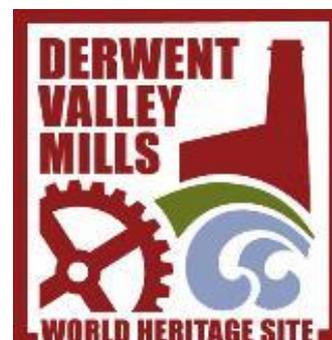


Table 1: Values and Attributes tackled by Derbyshire Environmental Studies Service Learning Days in the Derwent Valley Mills World Heritage Site.

Learning Day Title Key Stage Area of DVMWHS (Curriculum area)	Brief outline of the day	Values this day explores	Attributes visited and highlighted
Musical Masson Key Stage 1 Masson Mills (Music and History)	Sensory exploration of the whole of Masson Mills and the museum. Collecting inspiration from the sounds and feelings that would have been experienced working in and around the mills. Using different instruments to reflect sounds, feelings and emotions culminating in the composition, performance and recording of a percussive and voice piece of music on life in the mills.	Creation of a new way of life resulting from the need for people to congregate together (in factories).	Watermills, water courses, chimneys, relationship of the industrial mills and their dependent housing.
Textile Technology Key Stage 2 Masson Mills (Design Technology and History)	Investigation of how a wide range of textile machinery works, how cotton is processed into cotton thread and fabric and what life was like for families and children working in the mills during the 19 th Century particularly. Children have chance to 'become' different machinery in hands on activities.	Successful harnessing of natural energy to power the machines, creation of a new way of life,	Watermills, water courses, weirs, leats, machinery, relationship of industrial mills and their dependent housing.
Who is Richard Arkwright? Key Stage 1 Cromford Mills and Village (History)	A day focusing on Sir Richard Arkwright as a key figure in the story of the Derwent Valley Mills. Investigations of who he was, what he did and the legacy he left the area. Uses a wide range of historical sources and tours of features around Cromford and the mills.	Successful harnessing of natural energy to power the machines, new way of life, development of industry and new transport.	Watermills, water courses, mill ponds, aqueducts, soughs, mill yards, barracks, counting houses, offices, mill workers houses, allotments, pigsties, mill owners houses, churches, schools, inns, canals, canal wharfs, turnpike roads, railway
Wonderful Water Wheels Key Stage 2 Cromford Mills and Village (Design Technology and History)	Investigation of how the first mills at Cromford were powered by water, where it came from and how it worked. How the factory system was developed and spread across the world. Children use their learning to inspire them in a design and construction task building and testing their own model water wheel.	The successful harnessing of natural energy to power machines, creation of a new way of life, dissemination of technology to other parts of the world, transport links	Watermills, water courses, mill pond, aqueducts, culverts, weirs, leats, soughs, mill yards, mill workers houses, links to the canal, railways, wider landscape, canal, wharfs etc.
Brilliant Belper Buildings Key Stage 1 Strutt's North Mill, Belper River Gardens, Belper town (Art and Design)	Strutt's North Mill is investigated as a revolutionary building as one of the first to use new techniques and metal frame to make it fire resistant and strong enough for the machinery. Investigation of other buildings around Belper including the River Gardens, workers housing and East Mill using space, shape, pattern and materials to think about the purposes and design of these buildings.	Successful harnessing of natural energy to power machines, new way of life people congregating together, dissemination of new technologies.	Watermills, water courses, chimneys, mill workers houses, mill owners parks and gardens, chapels, schools, relationship to the wider landscape, hosiery, nail making industries etc.
Time Travel Belper Key Stage 2 Strutt's North mill, Belper Town, Belper River Gardens (Art and Design and History)	Belper is a settlement heavily influenced by the textiles industry. This day investigates the legacy of the Strutt family in the variety of buildings, services and heritage still present today. Children use historical and artistic skills to be building detectives around the mills, housing, town and other features and think about how all of these combine to provide a sense of place.	Successful harnessing of natural energy to power machines, new way of life people congregating together, dissemination of new technologies.	Watermills, water courses, mill yards, mill workers houses, mill owners parks and gardens, relict industrial landscape, churches, chapels.

Derwent Valley Mills World Heritage Site - Using Values and Attributes to explore our area

The pupils who took part in the 'Using Values and Attributes to Explore our Area' Learning Day were a small class of pupils in Years 3 to 6 (Key Stage 2) from Cromford Primary School. The day consisted of a number of activities designed to focus on the small part of the Derwent Valley Mills World Heritage Site in and around Cromford village (where the school is located) and the surrounding landscape and mills. The pupils had been studying 'their local history' for a few weeks and are obviously familiar with the area from growing up in the vicinity. The day aimed to explicitly focus on the Values and Attributes of the DVWWHS using the following explanations to make the terminology more accessible.

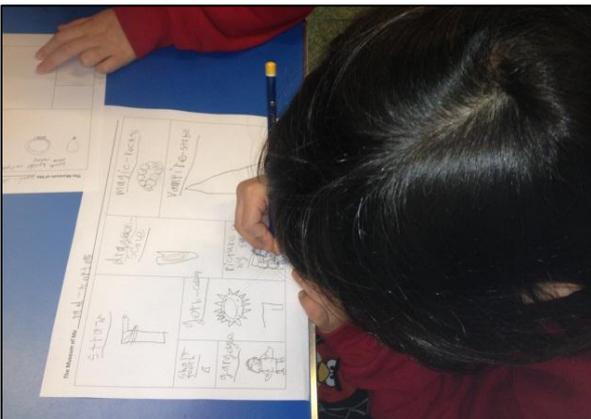
Values: What we think is important to us (and why it is important)

Attributes: What can we see, how do we show it is important.

The day was broken down into six activity sessions explained below:

1. What do we value? The museum of me.

As a starter activity this session was adapted from an activity introduced to Georgina by learning staff at the Maritime Greenwich World Heritage Site. After a discussion about what the pupils value in their lives and what is important to them they were asked to decide what they would put into a 'museum of me' that would be something that someone could see or view to demonstrate this important thing of value. The children were given a blank piece of paper divided into sections and asked to draw the things that would be in their museum. Children selected things like – a dog collar to show they value their dog, a photograph of their family, a model of a pet, a brick from their house, their drum kit, musical instrument, necklace, bracelet, games consoles, teddy bears etc. The aim was to enable the pupils to start with the idea of something that is 'valued' and link this to something that they can see or would preserve – an 'attribute'.



Left: What would you put in the 'museum of me'? What do you value?

Middle: Finding out about the DVMWHS

Right: Important buildings and features around Cromford.

2. What is a world heritage site? What are the values and attributes of this world heritage site and how have they influenced our lives?

This session involved a presentation and question and answer session looking at different World Heritage Sites around the world and what it is about them that we value. This developed to introduce the idea of 'Outstanding Universal Value' i.e. important to everyone in the world. It then focused on the Derwent Valley Mills World Heritage Site. The children were aware that the area is a World Heritage Site and began to go into more detail about why the area is of value and the things that are still here that are of value and show us this. The children were encouraged to think about what life might be like if we hadn't had factories; how lives changed when the factory system of working was introduced; where the materials for cotton spinning came from; how the cotton thread products were moved around; and how many of the different features and buildings that were developed and built then that are still in their surroundings today.

3. What important buildings and features are there around Cromford?

The children then jotted down on flip chart paper all of the different buildings and features that they could think of in their local area that are important. We then discussed why they were important – this focused on why they are important in the present day and, if they were old buildings and features, why they were important and valued in the past. For example – the canal side was valued today as a place to go walking and bike riding and in the past as an important transport link for goods and coal. The school was valued today as the place they come to learn and valued in the past as a way for the young children to learn to read and write when not working in the mill.

4. The World Heritage Site Landscape – then and now.

One of the hardest values and attributes to share about the Derwent Valley Mills World Heritage Site is its survival as a 'relict' landscape still intact, showing where late 18th and early 19th century industrial development can still be seen. To enable the children to see how little has changed in the area we walked out high onto the hills overlooking Cromford Village. From here the children had a bird's eye view across the whole landscape and could pick out the key features and attributes still present. These ranged from Willersley Castle, Rock House, Cromford Mills, North Street mill workers houses, the Mill Pond, Greyhound Pub, Masson Mills, Cromford Canal, the old turnpike road (now the A6), railway, Middleton Incline and High Peak Junction, evidence of lead mining, farm barns and many more. The only 'new' aspects of the landscape identified by the children were the large quarry (although the children did point out that there must have been stone quarried in the past for the houses and buildings), new housing estates and the roads now carrying trucks and cars instead of horse and carts. The children sketched the landscape, annotating their sketches with the key attributes and features old and new.



Left: Pupils sketching the landscape and features overlooking Cromford and the Derwent Valley.

5. Spotting the DVMWHS attributes around Cromford.

The fifth activity of the day involved a tour around Cromford Village, Cromford Mills and onto the Cromford Canal wharf area. Prior to the tour we discussed with the children the four main 'values' for the site and what they meant. These were simplified into four headings with a brief explanation.

- Water power
- Industry
- New communities and ways of life
- New transport and utilities

Under each heading was a ‘spotting’ sheet with the attributes associated with that value listed e.g. under ‘Water Power’ was listed – water mill, water course, mill pond, aqueduct etc. Under ‘New Communities and Ways of life’ the attributes listed included; mill-workers’ houses, pigsties, allotments, overseers’ houses etc. The children worked in groups each looking for different attributes, spotting them and ticking them off their sheet. They were then asked to fill in where they spotted it and why we value it and why it is important. (Example of a sheet in Figure 1). It was made clear to the children that they wouldn’t be able to spot all of the attributes but they were incredibly detailed and thorough and managed to spot an awful lot. They were also able to name other parts of the World Heritage Site where they knew these features existed from their own experience e.g. Leawood Pumphouse, High Peak Junction railway workshops etc. The children really enjoyed ticking off the features and realising that so much of their own community was so valuable and important to the World Heritage Site.

Below clockwise from top left: Spotting attributes – the ‘Bear Pit’ controlling water flow to Cromford Mills. Figure 1. Example of the ‘spotting attributes’ sheet the pupils used, ‘spotting’ the Greyhound Pub in Cromford village. By the Gothic Warehouse at Cromford Canal.



Spotting Attributes around the Derwent Valley Mills World Heritage Site				
VALUE – The important thing that happened in the Derwent Valley.				
WATER POWER				
This is where water power was first used to drive new machines in the new mill buildings. Products were made of better quality and faster than ever before using newly invented machinery and new ways of organising workers.				
ATTRIBUTES - the things we can see that show us that this happened.				
As you tour the area tick off the features you see in the table below and try to jot down where you spotted it (which street or area) and why it is important to you and to the World Heritage Site.				
Attribute / Feature	What it is	We spotted it!	Where we spotted it	Why we value it, why it is important.
Water mill	The mill buildings where cotton was spun.			
Water course	The rivers, ditches and channels that moved the water to the mills to power the machinery.			
Mill pond	Large area of water to make sure that the mills had enough water supplies.			
Aqueduct	A bridge-like channel that takes water over a road, canal or river.			
Culvert	A drain or channel that goes			



6. What we value in the DVMWHS around Cromford.

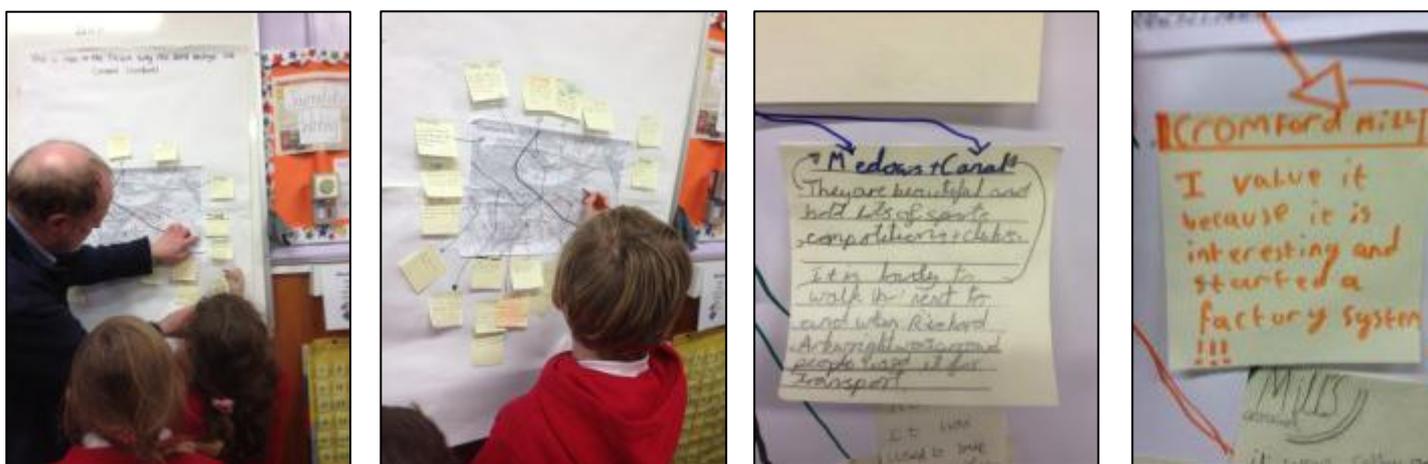
The final activity of the day aimed to pull together the concepts of values and attributes together for the area of the World Heritage Site around Cromford. A large map of Cromford was stuck onto flip chart paper and each child given two or three post-it notes. The children were asked to select one attribute that they had really liked viewing and visiting, name it, write down why they valued it and locate it on the map drawing a line from their post it note to the attribute and feature. The children were encouraged to include why they value features now as well as why we value the features in heritage terms. We felt it important that the children reflected the ‘living’ modern uses and importance of their community as well

as the historical value (see figure 2 below for examples). The children selected a very wide variety of features and attributes and clearly understood the importance, values and influence that their part of the Derwent Valley Mills has had on the rest of the world i.e. its Outstanding Universal Value.

This pilot day programme worked really well, emphasising not just factual, historical information about the World Heritage Site but also placing values at the heart of their learning – recognising not only what is there, but why it is so important, then and now. This led to the pupils conducting a wide range of further work on their area including making models of the workers’ housing on North Street and role playing Sir Richard Arkwright and Jedidiah Strutt discussing the purchase and development of the land.

It is hoped to continue to offer this day to young people along the length of the Derwent Valley Mills World Heritage Site and work closely with local young people to ensure they value and care for this outstanding area of World Heritage.

Figure 2: What we value in the World Heritage Site and labelling attributes and why we value them.



Below: Work the pupils have completed about their position in the Derwent Valley Mills World Heritage Site – a model of workers’ housing on North Street, a display of their role play work on the DVMWHS, and work on spinning, weaving and textiles.



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