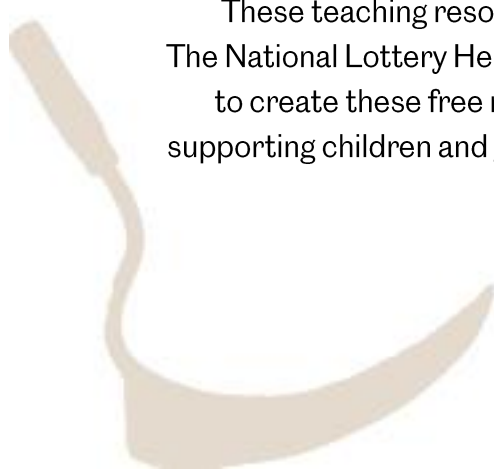




Abbeydale Industrial Hamlet

Free Self-Guided Resource for Schools

Key Stage 1



These teaching resources were made possible as part of Embrace Abbeydale, with The National Lottery Heritage Fund. Thanks to National Lottery players, we have been able to create these free resources for teachers, which give information and guidance on supporting children and young people on a self-guided visit to Abbeydale Industrial Hamlet.





Welcome to Abbeydale Industrial Hamlet

The historic heart of Sheffield's steel story

The early factory might look like a huge colossus of iron buildings, but these were once the noisy workshops and bustling homes of Sheffield metal workers and their families.

Generations of skilled workers earned their living here making crucible steel to a secret recipe. The steel was crafted in to high quality scythes and other farming tools that were exported around the world.

Abbeydale Works was once one of the largest water-powered industrial sites in Sheffield.

The thunderous noise of the big hammers and the roar of the grinding wheels would have rung out across the valley. Today, the site and many of its remarkable scenes have survived for us to explore.

Crucible steel made Sheffield famous, creating great wealth for a select few. The impact of the steel industry on people, landscape and nature are still being felt today. We are working towards understanding this complex legacy.

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Abbeydale Works, known as the Forge, supplied the Union



Over the years, the site has been used for a variety of purposes, including as a

1. Blasting Shop

Scythes were packed here ready for export.

2. Hand Forges

Workshops where skilled artisans still make hand tools.

3. Crucible Furnace

The only intact crucible steel factory in the world.

4. Tilt Forge

The forge and the hammers where metal was shaped into blades.

5. Water Wheels

The water-powered heart of Abbeydale Works.

6. Grinding Mill

Where skilled grinders put a sharp edge onto blades.

7. Counting House

The business hub of the site, where orders were made and workers were paid.

8. Workers Cottages

Homes for Abbeydale workers and their families.

Also look out for:

Manager's House and Garden
Family home for the Manager beside the River Sheaf.

Boring Shop and Millwright's Chamber

Where scythe blades were drilled, and water wheels repaired.

Steam Engine and Boiler House

The age of steam power arrives at Abbeydale.

Abbeydale Dam Pond

Holding river water ready to power the machinery.



+ Bunsford Farm

+ Eccleall Wood



Welcome to Abbeydale Industrial Hamlet

The team at Abbeydale Industrial Hamlet have put together these self-guided resources so that visiting school groups can better understand the site and its place in history. We hope to make visitors aware of the importance of sites like this, but also to help them relate to the people of Sheffield's history. These questions are designed to equip teachers with some helpful information about the hamlet, as well as some questions to help the students engage with the past. Much of history is better understood as a series of questions and interpretations, rather than simple answers about what happened. We hope to encourage students to relate to and empathise with those who came before us. Above all, we have designed these resources so that students and teachers will get the most out of their visit to Abbeydale Industrial Hamlet.

The resources are designed in a circular way, meaning that you can begin at any part of the museum and continue from there. However, we recommend that visitors begin at either the Dam or the Manager's house, working either forwards or backwards through the resources. If possible with staff numbers, teachers may want to split students into two groups and start each group from different areas of the site.

We hope you enjoy your visit to Abbeydale Industrial Hamlet today. If you have any feedback or questions about these resources, feel free to get in touch with us at:

learning@sheffieldmuseums.org.uk



The Dam and Waterwheels

Abbeydale Works was the biggest water-powered industrial site on the River Sheaf in the 19th century. The river water held in this dam was very important as it provided the power for all of the Abbeydale site, and continues to power the four waterwheels today. The dam was also used for a variety of other activities, like fishing, bathing and ice-skating.

Help the children to put together the steps of the process of channelling this water power: the water from the river was held in the dam, then released to flow through the waterwheels which drove the machinery.

Possible questions to ask your students:

At the dam:

- If your group is starting the trail here, you could begin by asking the children what initial thoughts they have about Abbeydale: What do you think about this place? How does being here make you feel? What do you think people did here?
- Where does the water in this dam come from?
- Does anybody know what this river is called? (You can explain to the children how the city name 'Sheffield' comes from the River Sheaf.)
- What wildlife and plants live here? Would it be safe or dangerous to be an animal or a plant in/around the dam and the steelworks? Why?

At the waterwheels:

- How many waterwheels can you see? (There are four waterwheels of varying sizes)
- What sound do you think the waterwheels would make when they are running? Would it be noisy with all the water flowing?

Students may ask:

- Do the waterwheels still work/is the dam still used?

Yes! Although the water in the dam has been lowered after a problem with leaking, when the leak is repaired the dam will be refilled and the waterwheels will run again.

- Can you paddle/swim etc. in the dam?

Make sure the children understand that they definitely cannot do so now, but that in the 19th century people did swim in the dam and even skated on it when the water froze, as winters then were much colder than winters now.



Workers' Cottage

Three workers' cottages were built on the Abbeydale site more than 200 years ago. Some Abbeydale workers could use the money they earned to rent a cottage for themselves and their families to live in. Living so close to work was convenient, and in the Victorian period this cottage would be seen as a good place for a workman's family to live. Invite the students to explore the cottage, asking them what makes it different from a modern house, and if they think they'd like to live here.

Possible questions to ask your students:

- What do you think is missing from this house? (Some possible answers could be an indoor toilet/bathroom, running water, electric lighting, heating, fridge/freezer)
- What would it be like living without an inside toilet?
- How would you feel living without electricity? (Cold and dark)
- Some of the families living here had up to 10 children. How many siblings do you have? Would you like to have so many brothers and sisters?
- Do you think there's enough space for 10 children to live here? (emphasise the crowding and lack of resources, with children having to share beds and sleep on the landing)

Students may ask:

- How did the people living here stay warm?

Point out the fireplaces downstairs and upstairs, the rugs and curtains used to provide insulation, and the multiple blankets on the bed, but stress that it would still feel very cold indoors in the winter! Some students may notice the warming pan on the bed. The pan would be filled with embers from the fire and put under the covers to warm the bed up. The long handle made it easier to move the pan around the bed and carry it without burning yourself.

- How did people see at night with no lights in the house?

The workers and their families would use portable light sources like candlesticks and oil lamps. Over in the Manager's House, the manager's wealthier family had the luxury of two oil lamps.

- How did the people living here wash/get water?

Water would have to be collected outside and brought into the house to be heated up and used. The toilet was outside and was shared between everyone living in the three cottages. The inhabitants of the cottage could use chamber pots at night to avoid having to go outside to the toilet in the cold.



Grinding Hull

The grinding hull is where tools at Abbeydale were sharpened.

The site's water wheels powered grindstones inside that grinders would use to sharpen blades. The access to the grinding hull itself is limited at the moment, but students are still able to look inside to see some of the machinery from that time. For further information see the interpretation board.

Possible questions to ask your students:

- What can you see in this room?
- What can you hear? (The grinders soundtrack will be playing most likely)
- Grinders had to work very long hours, from dawn till dusk, could you imagine doing that? Would it be difficult?
- The grinders used to work in this room to sharpen tools made here. Do you think that would be dangerous?
- What would be good and bad about working in this part of the hamlet?

Bonus Question: What kind of skills do you need to work here?

Students may ask:

- How were the tools sharpened?

The water wheels powered the spinning grindstones, grinders would sit on a wooden bench called 'horsing' and move the blades along the spinning grindstones to give the blade an edge.

- Why can't we go inside?

The grinding hull is closed because it is quite dangerous to go near the machinery.



The Steam Engine, Boiler and Tilt Forge

General Notes: There is a lot to see between these three features. If possible with staff numbers, teachers may want to separate their students to look at different sections of the area.

The Boiler, or the foundations of where the boiler once was: These foundations once housed a boiler to heat the hamlet. In 1870 the boiler exploded causing one death and several injuries.

Possible questions to ask students:

- Does anyone know if they have a boiler at home?
- What does a boiler do? It heats things up. What do you think a boiler as big as this would heat?
- A long time ago, this boiler exploded. What kind of sound would that have made? What kind of damage do you think it caused?

The Steam Engine Room: This steam engine is the only one in Sheffield that is still in its original site and has been restored thanks to the work of historical engineers and restoration specialists. It was added to the site in the 1850s and helped to power the machinery at Abbeydale when there was not enough water in the dam to do so.

Possible question to ask students:

- Have you ever seen a machine like this before? What do you think of it?
- A long time ago, this was how we powered technology. What do we use now to power our machines?
- This steam engine is very old, but it looks brand new. Why do you think that is?

The Tilt Forge: It was in this room that scythes were made by welding steel between iron. When the site was actively making tools, this room would have been filled with the sound of the huge hammers powered by the waterwheels and the heat of molten metal.

Possible questions to ask students:

- What can you feel in this room? (Temperature) Can anyone think why it might be colder here? (Materials used to build the forge)
- It used to be very dangerous to work in a room like this with all the hammers, could you imagine working here?



The Crucible Furnace, including the Charge Room, Potmaker's Store and Cellar

Crucible Furnace: Here men worked in extreme heat with very little protection to forge the crucible steel. While it is hard to prove where exactly crucible steel was first developed, the unique 'recipe' used at sites like Abbeydale was part of the reason Sheffield became so synonymous with steel production. There is not much space in the building so again, if possible, teachers may want to split the children into groups to look at different sections.

Possible questions to ask students:

In the Charge Room:

- It was here that they made the steel for the tools and it would get very very hot (up to 1600 degrees). What kind of clothes would you have to wear? (The workers only had leather and water-soaked sacking to protect themselves).
- This kind of work required a whole team of workers working together. Do you like to work in a team like that or do you prefer working alone? Why?
- Our city of Sheffield became quite famous for its steel. What other things do you think are famous or do you like about Sheffield? Or if you are not from Sheffield, what is your hometown famous for?

In the Potmaker's Store and Cellar:

- Down here is where the pots we saw upstairs were made. Would you rather work down here making pots or upstairs with the metal? Why?
- Pot makers would travel all over the country to do their work. Do you like to travel? Have you been to other countries or other parts of our country?
- At this time, most children had to work and they could not go to school. Would you rather go to school or work in a place like this? Why?

Bonus Question: *What would be the best and worst thing about living and working here? (No wrong answers)*

Students may ask:

- **Why do they put the metal in the holes?**

They are called melting holes. The team would lower the steel mixture in and close the lid to keep it hot enough. It could take up to four hours!

- **Why are the pots on the shelf destroyed?**

Those pots are the ones that have been used and been damaged by the process.



The Blacking Shop

In the Blacking shop a variety of jobs were performed. Here the finished scythe blades would be painted with a special varnish to prevent rusting, then dried in front of the fire. When the blades were dry, they would be wrapped up in straw rope (as seen on the workbench) ready to be stored in the warehouses on the site and then shipped out across the country and abroad.

Remind the children that although it might be very quiet now, this was in fact a busy workshop full of employees using tools and making lots of noise.

Possible questions to ask your students:

- What would be good about working here?
- What might be dangerous? (Highlight the sharp scythes, the furnace, the damage to the workbench from the tools, and the lack of protection for the workers' hands and eyes)
- What sort of noises do you think the tools would make?
- Would you like to work in the Blacking shop, or would you prefer to work in another one of the buildings you've seen? Why?

Students may ask:

- **Where did the stairs lead to?**

The stairs went up to the warehouse where the packaged scythes were stored before being exported.

- **What was kept in the big container?**

Whale oil, used to lubricate the scythes. Whale oil was used generally as it is thin and non-corrosive and stays in liquid form even in freezing temperatures. At Abbeydale, whale oil was applied to hot scythes as it could bring the temperature of the metal down without affecting its high quality.



The Works Gallery

Here may be a good place to reflect on what you have seen so far with a bit more space for the students. You can learn more about the different jobs that were done at Abbeydale and talk about what the students think.

Possible questions to ask students:

- How would you describe this place to your friends or family?
- What do you feel when you come to a place like this? What do you think is most interesting about it?
- Do you think it would be harder for the workers or the owners?
- An important part of this place is that the tools were sold all over the world. Why do you think that's important?
- How would animals be affected by this place? Imagine you are a fish or a bird living here.
- What kind of questions would you like to ask people that worked in the places we have seen today?

Bonus Question: Steel was important all over the world. Can you think of any countries that might have been involved? (Students will likely guess any countries they know).

Possible answers:

Russia, USA, France, Spain, Germany, Brazil, China, Australia, India, Sri Lanka, Sweden, Norway.



The Manager's House

This was the family home for the manager of Abbeydale Works, built in 1838. The coach house and the stables were added in 1840. Today it's furnished to show what home life was like for a lower-middle class family in the late 19th century.

Children can also be encouraged to compare the features of this house to those of the Workers' cottage and make a judgment on where they'd rather live and why.

Possible questions to ask your students:

- What do you think is missing from this house? (Some possible answers could be an indoor toilet/bathroom, running water, electric lighting, heating, fridge/freezer)
- How do you think people in this house might have kept warm without heating?
- Would you like to live in this house? Why?
- Abbeydale had lots of different people in charge over the years. What do you think would be good or bad about managing a place like this?
- At the coach house you can see the coach that the manager would travel around in. The coach was pulled by horses. What other modes of transport can you think of? (Children can be guided to consider the differences between the transport available in the past and the transport available in the present)
- At the stables, you could ask the children what other jobs they think horses may have done at Abbeydale? (As well as pulling the manager's coach, horses were used to pull carts of materials around the site and to other locations nearby)

Students may ask:

- Why does the (master) bed have curtains around it?

In the Victorian times bed hangings were common for families who could afford them. They allowed the manager and his wife to have some privacy from their children and from servants in a time when houses were generally smaller and families generally larger and were also a status symbol.

