

A photograph of three children in dark blue railway uniforms and black caps. They are gathered around a tablet computer, looking at the screen. The background shows a museum setting with a red steam locomotive and informational panels. One panel has the text 'STAN... LOCOMOTIVE 41700'.

BARROW HILL ROUNDHOUSE

Teacher's Resource Pack

Learning opportunities at
Barrow Hill Roundhouse

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We welcome you to Barrow Hill Roundhouse

This pack provides you with historical information about Barrow Hill Roundhouse, a summary of our learning offer and activity ideas to undertake before, during and after your visit. It has been compiled to help you make the best use of the learning opportunities available here. Use it to see how a visit to the Roundhouse can fit with your pupils' learning journey. We hope you enjoy a rewarding and memorable day with us.

Our learning offer

To enrich learning in and beyond the classroom, Barrow Hill Roundhouse offers:

- Engaging and curriculum-focused workshops and activities delivered by our learning team.
- Access to our special handling collection to bring the story of the Roundhouse to life.
- Self led creative activity ideas to undertake before, during and after your visit to extend your learning experiences.
- Access to our interactive exhibits, engines and turntable.
- Dress up and role play opportunities.
- Family Explorer and Sensory Support back packs.
- The opportunity to take part in a 'Discover in a Day' Arts Award session here at the Roundhouse.
- An Explorer Pack.
- A Roundhouse visual story.
- Outreach sessions bringing the Roundhouse to you.
- A curriculum guide highlighting learning outcomes to support your planning.

Resources

We have a selection of resources available to download from our learning pages for use in the classroom and here at the Roundhouse. They include the following:

- Writing frames and other templates.
- Fun fact files.
- A selection of trails including an object hunt, maths, sensory, scavenger and look around trails.
- Lesson packs.
- Activity sheets.

Barrow Hill Roundhouse volunteers

Our enthusiastic and knowledgeable volunteers are an important part of our learning team and central to our learning offer. They are happy to help you as you explore and can advise you on points of particular interest. They can also help you understand how the site is managed and looked after.

Quote about volunteers here

Learning programme

Our Learning Programme document outlines in detail the staff led workshops and activities that take place here at the Roundhouse during your visit. It also includes important booking and risk assessment information and step by step practical guidance about what to expect during your visit. Please download this first. **It is essential that you book your place and preferred workshops before arriving, even if you plan to do some self led exploration.** We are closed to the public during the week and are only open to school groups with a booking. Unfortunately, without one you will not be admitted onto the site.

Pricing

Admission to the Roundhouse is £4.50 per pupil which includes all workshops. All accompanying adults are free.

Organising your day

Please plan your activities before arriving and let us know if you intend to do some self led exploration. Remember, it is essential that you book your place and preferred workshops before arriving, even if you plan to do some self led exploration. Please download our Learning Programme first.

What to bring

We have writing and drawing material here at the Roundhouse as well as clipboards for you to borrow while you are here. Please wrap up warm and wear sturdy shoes. The Roundhouse has uneven floors and can feel chilly.

Feedback

We always strive to provide a high quality service as well as a memorable and enjoyable day. We welcome your feedback, and would love to hear from you about your day with us. You can download a feedback form from the learning pages.

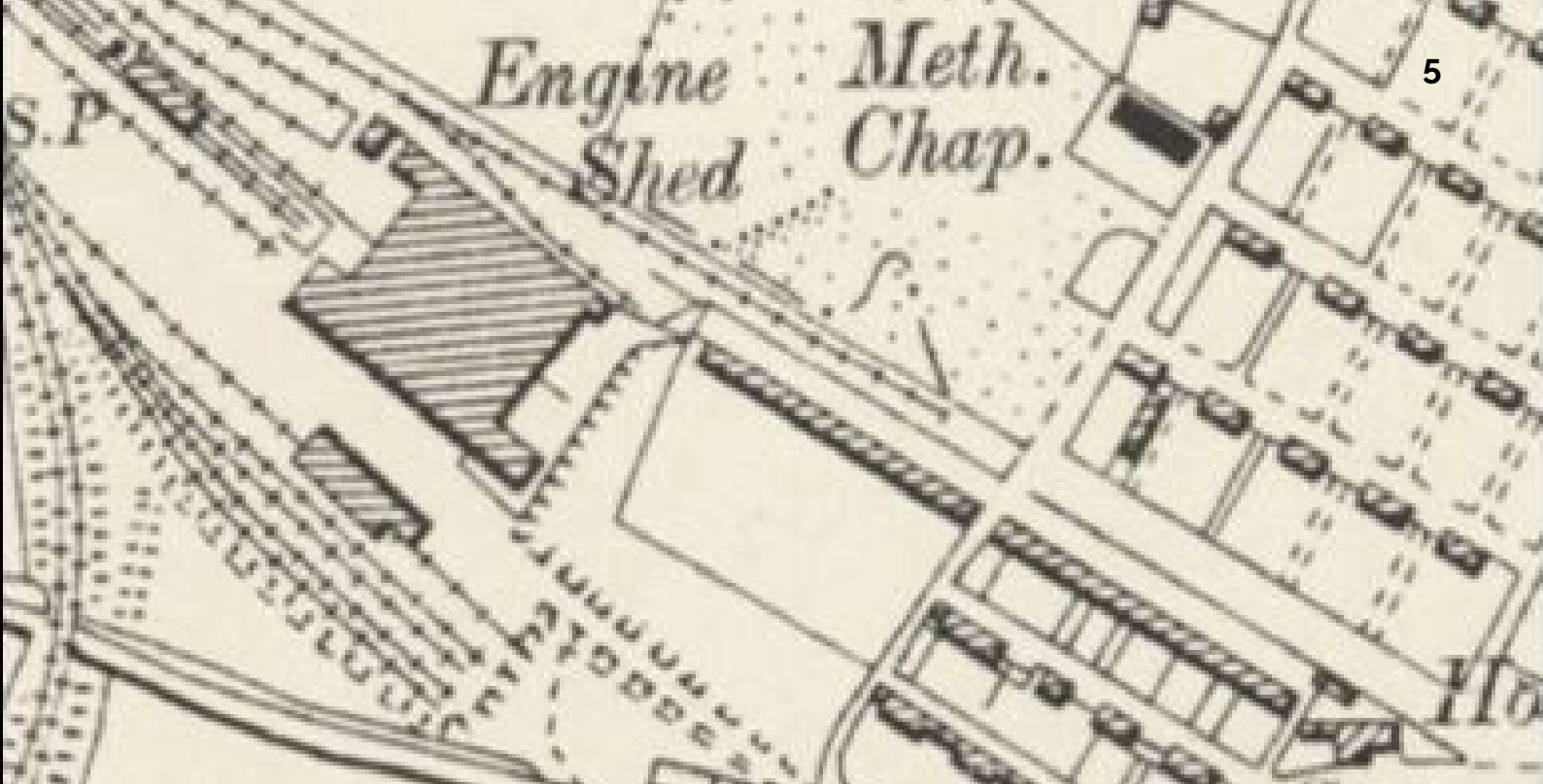
A health and safety reminder

Please keep in mind that the Roundhouse is a working railway shed during the week and as such, vehicles will be manoeuvring around the site. It is essential that all groups are supervised by an adult at all times and special care is taken throughout your visit. Detailed information about health and safety during your visit can be found in our Learning Programme document. We require your risk assessment at point of booking. We are always happy to advise you.

Finding your way around



Café - Meeting Point, First Aid & Lost Property
- - - No public access



Background information

Originally, the engine shed was known as Staveley Shed. In more recent times, it has become known as Barrow Hill Roundhouse, after the village. Barrow Hill village is less than 200 years old. Its story begins during the industrial revolution, with a landscape rich in coal and ironstone.

By the middle of the 17th century the area was already a centre for the iron industry. In 1663, a forge, furnace and waterwheel were recorded at Staveley, however the area was still largely farmland.

By the 19th century the landscape was transformed as both ironstone and coal were mined in huge quantities. With the arrival of the railways the industry boomed. The need to house workers became increasingly important.

Today there is little left of the industrial landscape, but the engine shed and the village are lasting reminders of the impact of the industrial revolution here.

An Engine Shed

In 1866 the Midland Railway signed an agreement with Staveley Works whereby they would operate the works' internal private railway for 100 years. By 1870, the building of the Roundhouse was completed at a cost of £16,445 4 shillings and 9 pence. It would work continuously for the next 121 years.

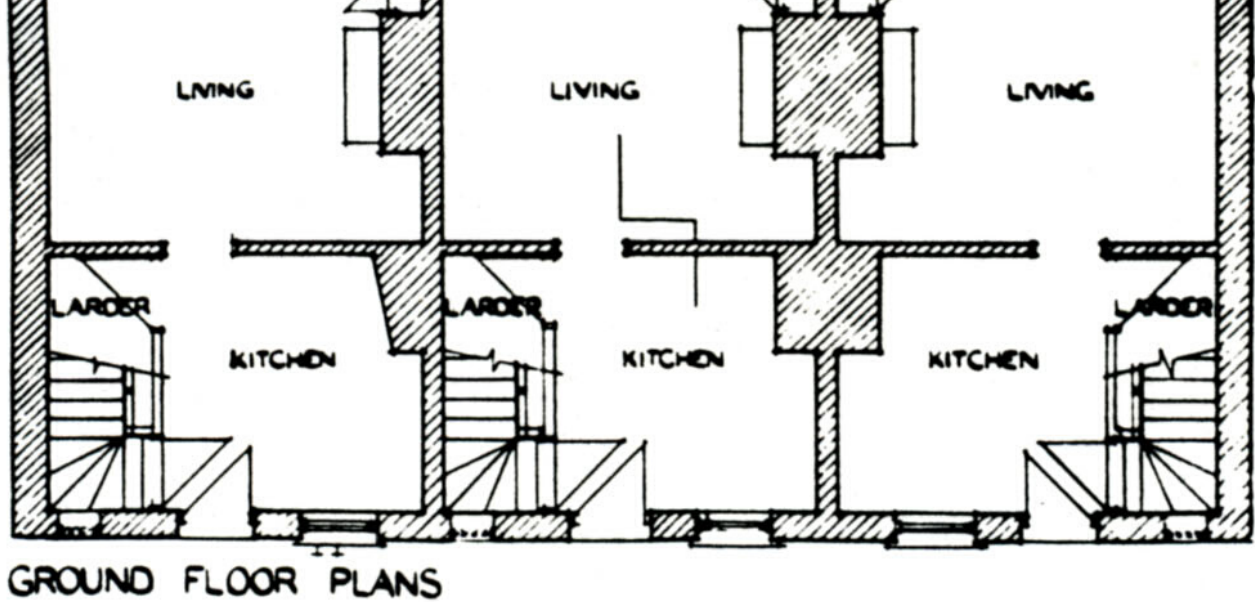
The Roundhouse was built to house locomotives and to service those that needed it. Particularly during the days of steam, there would be plenty going on in this 'rusty buffer depot' or 'The Shed' as it became known. The Roundhouse became key to the transportation of coal and iron from the local works to sites throughout the country. It also ensured that steam engines were maintained and kept ready to carry their cargo.

Preparation pits show us that workers would get underneath locomotives that needed maintenance. Steam locomotives would also need cleaning out after a journey and re-fuelling (with water and coal) before setting off again.

The people

During its hey day, Barrow Hill employed around 120 drivers, 120 firemen, 60 passed cleaners, 20 cleaners, plus numerous shed and office staff. Many people from the local village were employed here as well as some from further afield.





Building Barrow Hill

Staveley ironmasters, George and Richard Barrow built housing for their workers, which was a condition of the mining leases they had negotiated in the 1840s. It also made good business sense. The growing works needed more men and offering homes for new employees was a powerful way to draw labour into the area.

Over a number of years, they built cottages including Furnace Hill, Cavendish Place, Devonshire Terrace, and East and West Railway Terraces. This area was known as 'Staveley Forge'.

The houses at Barrow's Hill were of much higher quality than the standard workers' cottages of the time and had gardens and space between them. Richard Barrow's idea to build better housing for workers is known as a model village and was many years earlier than other better known villages at Bourneville and Port Sunlight.

The village had a combined church and school, a hotel, and a workmen's dining hall to provide cheap meals. The hall had a library and a reading room to encourage workers to be better educated, and talks and music concerts were held to further educate workers. In return, Richard Barrow would have a healthier and more loyal workforce who would be sober and turn up for work.

The better housing and access to cheap meals meant that workers had healthier lives and in 1910, the death rate at Barrow Hill was five times less than in other local mining villages.

Decline

The decline in the iron and coal industries meant that sheds like Barrow Hill were needed less and less. By 1987 there were only 3 diesel shunters allocated to Barrow Hill and in its final years the shed was simply a stabling and signing on point for locomotive crews on coal traffic workings. In 1991, British Rail closed the shed after 126 years of locomotive maintenance.

Rescue

Following its closure, the formation of the Barrow Hill Engine Shed Society (BHES) enabled the building to be listed with just 48 hours to go before its demolition. By 1996, the society had purchased the land from British Rail and a fundraising project began, eventually followed by renovation work. In the intervening years, vandals had stripped the roof and other parts of the building and nature had started to reclaim the land for itself.

Today

There are several other roundhouses still around the country today. Derby's old roundhouse is used as an events venue and the National Rail Museum uses the old roundhouse for its exhibitions. What makes Barrow Hill roundhouse unique is that it is once again a working roundhouse continuing the legacy of the railways into the future.



Pre-visit activities

Your learning journey starts before you arrive. Prepare pupils for a visit with the following activities.

In the know

Steer thinking and organise questions with a K - W - L (Know - Want to know - Learned) session. Brainstorm: What do I know about Barrow Hill? What do I know about the Roundhouse? What do I want to find out? Create a list, chart or mind map of your discussions and ideas. At the end of your project or visit plan time to reflect, and think about: What have I learned?

Visual story

You can download a visual story from our website to help all pupils access and understand their experiences during a visit to the Roundhouse. The visual story provides information on what to expect at different stages of a visit; giving structure and reducing anxiety. It may be particularly helpful for pupils with autism, communication difficulties or other learning needs.

Special delivery

Arrange for a package to be 'delivered' to the classroom that contains a selection of objects linked to Barrow Hill Roundhouse. The objects should stimulate pupils' curiosity and prompt discussion. As you unpack the objects, encourage pupils to handle them and ask questions about what they reveal. A new topic or a special visit? Create the beginnings of a Barrow Hill Roundhouse display or exhibit ready for your visit. The items could include; a lump of coal, cast iron, a postcard, old photographs, old and recent maps, engine driver's hat.

Stay safe with Thomas

Network Rail and the British Transport Police, in partnership with the creators of Thomas and Friends have developed a story to help young children learn how to stay safe around the railway. English and Welsh versions of the book are available to download from Network Rail's website.

Just the job

What did people who worked at the Roundhouse do? Research their roles and responsibilities. Write a job advertisement detailing the personal qualities and skills required to carry out each job. You could even apply for the job by writing a formal letter of application in response to the advertisement. Together, read the letters of application and shortlist candidates. Conduct interviews and choose the new Roundhouse team. Roundhouse jobs include: Foreman, Engine Driver, Fireman, Cleaner.

Sounds like a plan

Involve pupils in planning the visit. They could:

- Research the Roundhouse - location, facilities, history.
- Plan the journey. How far away are you? How will you get here? How much will the travel cost? Which is the best value?
- Plan the activities. What would you like to learn when you get here?
- Draft and write a letter to parents/guardians informing them of the trip. What information needs to be included? What will you need to bring with you on the day?

Learn the lingo

There is a Roundhouse glossary on our learning pages that contains words pupils may encounter during a visit and relating to Barrow Hill and the Roundhouse. The glossary can be used in a variety of ways:

- Cut along the dotted lines and jumble up the word and their meanings. Challenge pupils to match them correctly.
- Cover the definitions and search for them in books and dictionaries.
- Display the words as key vocabulary and use them in writing.
- Sort the words into themes or topics.
- Invent your own meanings.
- Muddle then re-arrange the words in alphabetical order.



People power

Barrow Hill Roundhouse was saved from demolition at the last minute by a group of people who wanted to restore and protect it for the future.

Discuss and do:

- Was it important to save the Roundhouse?
- What would happen if all old buildings were demolished or left to fall apart?
- How would you feel if the Roundhouse had no one to take care of it? What would happen to the building if we did not protect it?
- Devise a slogan for saving the Roundhouse.
- Write a persuasive letter to a local councillor or MP outlining why the Roundhouse or another local building should be saved.

Making a living

Explore census returns from the nineteenth century for people who were born and lived in Barrow Hill. Look at their occupation and create a 'Making a Living' database or fact sheet. Find out: What did the youngest workers do? How did most people earn their living? Did men and women do different jobs? Who had the most unusual job? What was the average age of workers in the area? Which job sounds the most interesting? Which job sounds the least interesting? What impact did the building of Barrow Hill Roundhouse in 1871 have on the area?

You will find Joseph Toon and Frank Forward in the punishment book displayed here at the Roundhouse. You will also find them in the 1881, and 1891 census. What can you find out about them from the census returns?

Research how people made a living in the past across the whole of Derbyshire. Research how people make a living now. Compare your findings.

Can you find out more about what life would have been like for Joseph Toon and Frank Forward and their families?



During your visit activities

The following activities can be undertaken with supervision during your visit.

Handling objects

Handling objects are available to you during your visit. They provide a unique opportunity for a practical interaction with objects that link us to people and place, and the Roundhouse's associated stories.

Please let us know when booking if you would like access to the handling objects.

Family Explorer and Sensory back packs

We have Family Explorer back packs available to you during your visit. Each bag contains resources and fun activities for you to do that engage your group with the site and collections.

The Sensory Support back packs contain items such as ear defenders to help you comfortably navigate the Roundhouse and may be useful for pupils with sensory needs.

Roundhouse trails

We have a number of trails and you are welcome to try them out during your visit. They offer a fun and focussed way to explore the Roundhouse. They support a range of curriculum subjects or can be undertaken just for fun. You can download and print them from our website and copies are available here.

Trails include:

- 24 Objects
- Maths trail
- Look around

Snap shot

What does the Roundhouse look like when viewed through a lens? As you explore, use a camera viewfinder to frame special features. Use your 'viewfinder fingers' to help focus your observations. Take various shots of a range of features from different angles and positions. Experiment with: portrait, landscape, close-up, focus, zoom, blur, colour, flash on, flash off.

Measuring up

Estimate and measure the:

- area of a floor brick
- width of a loco
- width of a doorway
- depth of a step
- height of a loco wheel
- space between two locos

When the Roundhouse was built, builders would have used precise measurements. But you don't have to! If you don't have measuring equipment use your body and its parts instead. How about using your fingers, hand span, feet, stride or forearms?

Read all about it

You will find interpretation panels all around the Roundhouse that reveal the story of the site. We encourage you to use them as part of your day if appropriate to your group. The text is accessible for a range of abilities and the photographs, images and graphics reveal further information and facts. Why not have a go at the 'Fact finding mission' found in our learning pages and explore the exhibitions to answer the questions.

Scavenger hunt

The Roundhouse is filled with fascinating objects, colours, patterns and images. If you look high, low, in, around and under you will see fascinating finds. Test your observational skills and find something: smooth, smelly, loud, busy, important, expensive, green, beautiful, calm, natural, old, man-made, colourful, imaginary, symmetrical, inspirational, unusual, hidden, cold.

Use the scavenger hunt sheets found in the learning pages to collect your special finds. Say or write another word to describe it? Can you connect your finds in some way? For example; natural objects, made of stone, made of metal, linked to steam, connected to Barrow Hill.



Albert's Room

Actively explore with our interactive displays. Encourage pupils to test out the science in action around the Roundhouse.

Railway Sayings

Many words and phrases we use today can be traced back to a railway origin. Have a go at finding the missing words to complete the railway sayings.

Pulleys

Did you spot the sheer legs in the Roundhouse? They used a set of pulleys to help workers lift the front of a locomotive body off the wheels. Use the pulleys and gears in the display to see for yourself how they can help you lift a heavy weight.

Cams

Inside diesel locomotive engines, valves open and close to let fuel in and exhaust out. Cams are used to make the valves open at different times as the cam rotates around a shaft. Test how a cam mechanism works and the effect of different shapes.

Linkages

A linkage allows a force to be directed to where it is needed. They are used in steam locomotives. Have a play with the linkages in the display to see how they work.

Cogs and Gears

Steam locomotives are driven by coal but some locomotives have engines which need diesel to fuel them. Diesel engines run very fast. Gears use the power of the engine and change it to different speeds when needed. Read the cogs and gears challenges, have a go and see what happens!



Post-visit activities

When you are back in the classroom the following activities may help to consolidate learning.

A day in the life

During your visit you may have found out a lot about the jobs people did at the Roundhouse.

You may also have had a go at the tasks they did and tried on the clothes they wore.

Find out more about what life was like for them and write 'A day in the life of a

Roundhouse: Foreman, Engine Driver, Fireman, or Cleaner.

What would life have been like for their families?

Roundhouse treasures

If you were an archaeologist and could dig at the Roundhouse what would you expect to find? Archaeologists search for evidence of how people lived and worked. Imagine what you may find. Draw in detail objects you would expect to unearth. Label and describe them. What are they? How were they used? What do they tell us about the people of Barrow Hill and the Roundhouse?

Barrow Hill biography

Choose a person you heard or read about during your visit and find out more about them. Create a biography or fact file. You could also retell their story in your own words.

You may decide to do:

- Richard Barrow
- George Barrow
- George Stephenson
- Richard Trevithick

Use the biography frame from our learning pages as a planning sheet, and write a 'A Barrow Hill biography' to tell the true story of his life. You may need to do some extra research about him.

Ahead of their time

You may have heard or read about how Barrow Hill village was built.

By building gardens and leaving space between houses the 'Barrow Blocks' were ahead of their time.

Design your own village for 21st century living. Think about the health of the people living there and the environmental impact of the buildings.

Roundhouse recount

Retell the events of your trip to the Roundhouse in chronological order. Describe what happened and what you learned on the day.

Include pictures, descriptive language, paragraphs, time connectives and a quotation.

Ensure it is written in past tense and in the first or third person.

You could use one of the writing frames on our learning pages to present it.

World exclusive

In pairs conduct an 'exclusive interview' with Richard and George Barrow at the time they were building the village of Barrow Hill. Take it in turns to play the role of the brothers and the interviewer. Ask questions about their lives and take notes on the answers given. Top tip: A good interviewer asks open, clear and well researched questions. Write up your interview notes as a newspaper report or magazine feature. Include a headline, facts and opinions and quotes. Include a picture and caption.

Test it out

A visit to the Roundhouse can inspire ideas for a range of STEM projects and experiments. The following are just the beginning:

- Design and make a locomotive. Construct it with Lego, K'nex or Meccano - a great way to test ideas!
- Design, make and test a working turntable. Which mechanism will make it turn? Cogs, levers, linkages, cams?
- Test the strength of bridges of different materials and sizes. Which shape provides the strongest structure for a bridge? Can you create the strongest bridge using one piece of paper? Which material is the strongest?

Wish you were here

Print out one of the photographs of the Roundhouse taken on the day of your visit. Use it as a postcard and write on the other side to a friend or family member telling them what you did and learned on your trip.