



National Railway Museum

Shortlisted for Family Learning to Support
STEM Learning

The National Railway Museum in York celebrates past, present and future innovation on the railways. With a range of iconic locomotives in their collection, they showcase all kinds of stories, sounds, ideas and achievements for train lovers to learn from and enjoy.

The museum has been shortlisted for their latest immersive experience - Wonderlab: The Bramall Gallery. Judges from Campaign for Learning and CACHE Alumni loved the real focus on inclusive design, the reach the project has, and the STEM capital available to learners.

Family learning provision

This interactive multi-sensory experience opened in July 2023 to allow families with children aged 7-14 to explore how the railway works. With the input of engineers, educators, and artists, the fun, interactive, and hands-on space is designed to ignite curiosity. Specifically, the gallery aims to embed core engineering concepts and encourages visitors take some of this 'science capital' and ways of thinking away with them to better understand what is needed to become an engineer.

Creative problem-solving is woven into the activities to encourage families to practice and play with design, building, and testing. There are regular science shows and demonstrations, with explainer colleagues on hand to provide insight into how to think like an engineer.

The National Railway Museum worked with an access consultant, visitor family groups, and The Snappy Trust to gather feedback on exhibit design. They aimed not only to improve accessibility, but to meaningfully capture a wide range of needs and wishes and reduce as many systematic and structural barriers as possible.

Impact and next steps

Hundreds of free tickets have been distributed to under-served communities via the Community Access Scheme, as well as discounts being made available via York's Max Card scheme for care experienced children and children with additional needs.

Through the use of focus group work, planned exhibits and area design were adapted ahead of the project launch. One result of this community consultation was Play Revolution, which introduced creative and more risky play that encourages families to learn together.



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The Railway Museum continues to collect feedback through post-visit surveys and in-gallery conversations, using this to adapt and improve the Wonderlab experience. In addition, the gallery has commissioned a summative evaluation to review aims and planned learning outcomes. Post-visit surveys have demonstrated a very positive sentiment, with visitors enjoying how informative and exciting the gallery is, as well as how all ages are served. One visitor stated it was “easily the best STEM experience in the region”.