

Welcome aboard

Your Railway Future

Shape the railway's next 200 years with a career in rail.

3

1

Railway Firsts

Journey through time and discover the ways that railways have helped shape our lives.

2

Wonderlab on Wheels

Think you've got what it takes to make the railways run smoothly? It's time to put your skills to the test.

4

The Partner Zone

Round off your railway journey and get inspired by our friends and partners.



Carriage 3: Your Railway Future

In this carriage, we're showing young people how exciting a future in rail can be. Also, how they can help shape the railway's next 200 years with a career in rail.

Whether they're passionate about saving the planet, love creating awesome videos, or you're a gaming whizz, there'll be something just for everyone!

Visitors can test their coding skills on a train set and see if they're able to programme the perfect journey, a fun way to explore real-world tech skills. For people that love animals and wildlife, they can learn how railway ecologists are protecting animals like bats, badgers, or butterflies along Britain's railways.



JOURNEY STAMP
No.4



TICKET HERE →



Target Audience

Audience

Our visitors will mostly be **young people aged 11–14**. Many of them may not know much about the rail industry, so this is a great opportunity to open their eyes to just how **diverse and exciting** it can be.

Purpose of the Carriage

We're here to **challenge stereotypes** about careers in rail. It's not just drivers and engineers — we're highlighting the many **'hidden roles'** in the industry that involve everything from coding and wildlife conservation to content creation and cybersecurity.

The goal is to help young people realise that **whatever their interests or skills**, there's a place for them in rail.

Your Role as a Volunteer

As a volunteer, you're not just helping run the experience—you're inspiring the next generation. Here's how you can make a big impact on the day:

Be welcoming and encouraging

Help young people feel comfortable and engaged with the activities. You'll receive a full briefing on the day, so you'll feel confident in your role.

Share your story

Young people love hearing real-life experiences. Talk about your own career journey—how you got into rail, what your role involves, and what you enjoy about it.

Promote inclusion in rail

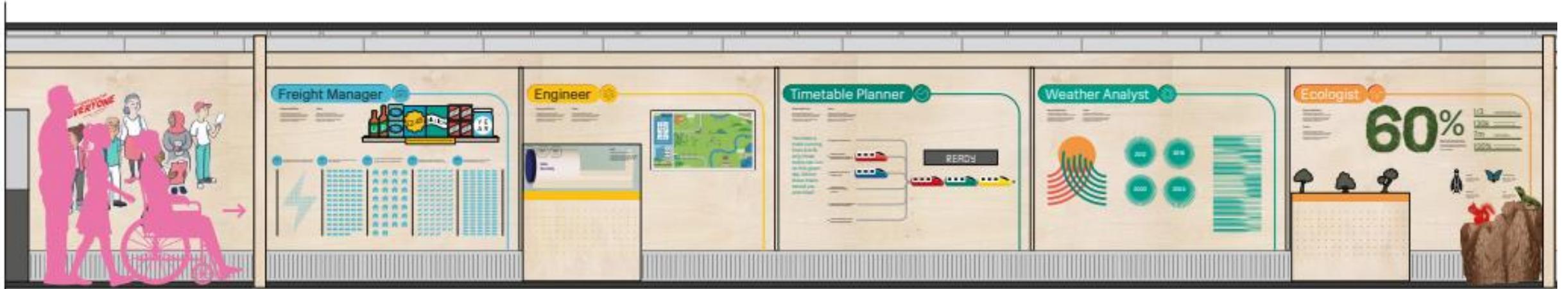
Emphasise that rail is for everyone, regardless of background or interests. There are so many ways to get involved—highlight the variety of roles available.

Surprise them!

Share a fun or unexpected fact about Network Rail to show there's more to the industry than they might think.

Design Overview

The colours, wayfinding and plaques helps to break the content up. Making each role feel unique and exciting in it's own right.



Left side

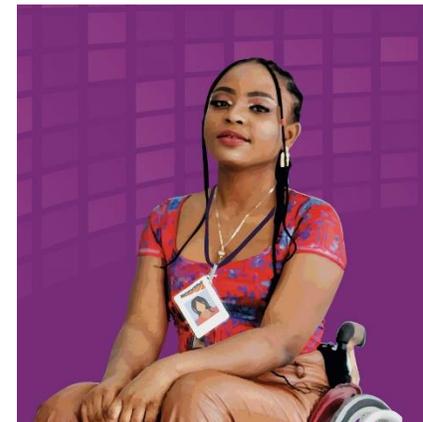


Right side

Introducing 10 Hidden Roles

Key messages: There is a role in rail for everyone. It takes hundreds of different roles to run today's railway. With jobs in cyber security, sustainability, air operations and IT, not all careers on the railway are what you might expect. Features a career quiz (for school visits) and signposts Routes into Rail for advice on career pathways.

1. Coder
2. Railway Teacher
3. Camera Operator
4. Freight Manager
5. IT Apprentice
6. Project Manager
7. Engineer
8. Timetable Planner
9. Ecologist
10. Weather Analyst



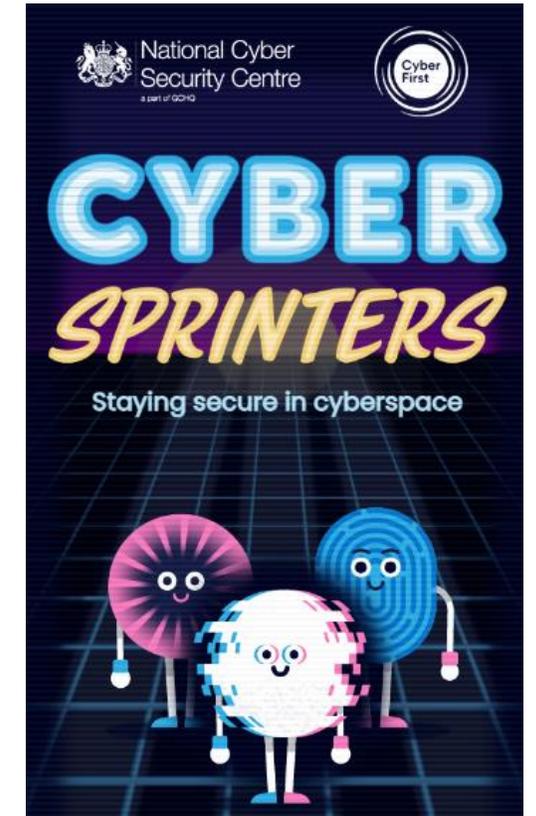
IT Apprentice

No interactive – Video from Cyber Sprinters

Our railway I.T. apprentices are brilliant at anything digital, working behind the scenes to keep rail technology safe and secure. They support teams across organisations to make sure their systems are working correctly, solving issues as they arise and creating cutting-edge apps to help colleagues work smarter and safer online.

Skills: Listening, Speaking, Problem Solving, Creativity, Staying Positive, Aiming High, Leadership, Teamwork

Interactive: Video from National Cyber Security Centre about online safety – it explains the game that children can play online at home



Project Manager

Interactives: Two games

From helping to fix buildings to planning events and keeping trains moving, a great project manager can unite teams from across the business to make it all happen.

Skills: Leadership, Teamwork, Speaking, Aiming High, Listening

Interactive: Tetra Balance Game

Game Instructions Tetra Balance A project manager needs to arrange tasks, teams and timetables, while keeping everything balanced. So, let's see how your organisational skills stack up. Carefully place each piece into the puzzle, making sure they all fit just right and build up on top of each other in a secure way. One wrong move, and things could topple!

Interactive: Prusa Balance Game

Being able to put together a team that's dynamic, diverse and with well-balanced skillsets, is essential for any successful project manager. So, here's a challenge for you... Have a go at Prusa – the game that requires sharp wits and a steady hand! Carefully place each piece to balance the game board



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Engineer

Interactive: Tunnel Boring Machine

Railway engineers are the innovators, solving problems and creating solutions with a mix of creativity and science. They design the technology for buildings, trains and tracks.

This important work keeps the railway running smoothly, helping people to travel and freight to move safely around the country.

Skills: Speaking, Listening, Leadership, Problem Solving, Creativity

Copy on interactive (Tunnel Boring Machine)

- 10.28 meters is the height of a tunnel boring machine cutterhead, that's the height of 2 giraffes.
- 17 crew members operate each machine and keep it running for 24 hours a day.
- 2,000 tonnes is the weight of a tunnel boring machine, that's equivalent to 340 African bush elephants.



Timetable Planner

Interactive: Prioritising train task

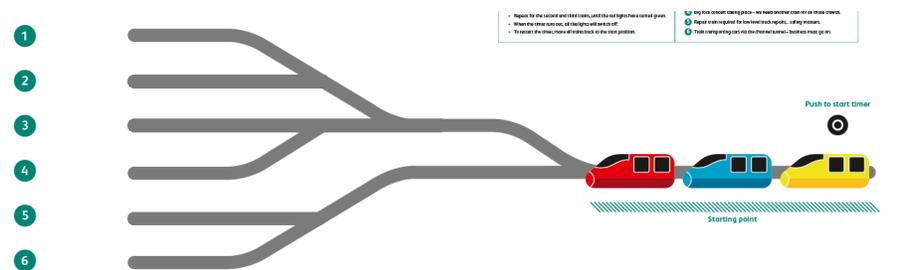
Timetable planners keep the trains moving by updating the rail timetable twice a year – in May and December. They plan ahead, preparing for anything that could happen. That way, if events like concerts, football matches, or even landslides happen...they're ready for it.

Skills: Listening, Speaking, Problem Solving, Creativity, Staying Positive, Aiming High, Leadership, Teamwork

Interactive: Game

Cancellations, servicing, special requests for events...when you're a railway timetable planner, every day comes with a new set of challenges! So, you need to be able to think on your feet to keep goods and people moving. And that means being able to prioritise. There's no single right or wrong answer, as things can change in an instant. But the best timetable planners make smart decisions quickly to find a way to keep the railways running smoothly. Do you have what it takes? Test yourself against the clock. What three requests would you prioritise?

How it works (Remember, you only have 30 seconds to choose)	Incoming requests (Choose three requests to prioritise)
<ul style="list-style-type: none"> • Make sure the three trains are at the start position on the track. • Push the start button. Let's go! • When the red lights illuminate, the timer starts. • Move a train to the request you'd prioritise first. • Repeat for the second and third trains, until the red lights have turned green. • When the timer runs out, all the lights will switch off. • To restart the timer, move all trains back to the start position. 	<ol style="list-style-type: none"> 1 Regular service train needed – to keep things rolling. 2 Big football match at North London Stadium – we need an extra train for fans. 3 Grocery freight train needed – to keep those supermarkets stocked up! 4 Big rock concert taking place – we need another train for all those crowds. 5 Repair train required for low level track repairs... safety matters. 6 Train transporting cars via the channel tunnel – business must go on.



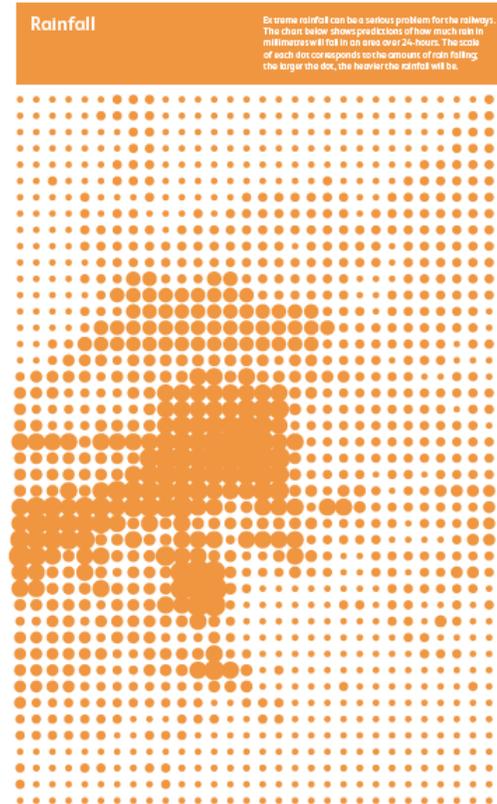
Weather Analyst

No interactive: Display

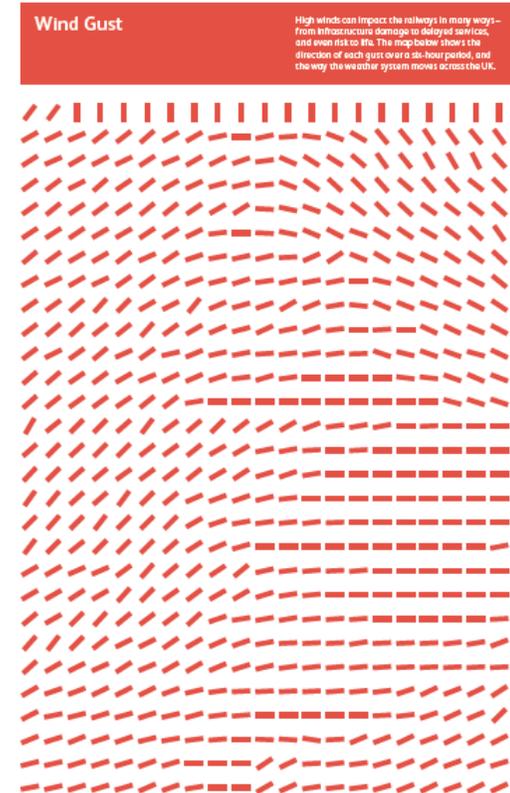
Our railway weather analysts are responsible for predicting all the twists and turns of the ever-changing UK weather – and how those very different conditions will or could affect the rail network.

Skills: Problem Solving,
Creativity, Teamwork,
Listening, Speaking

High winds can impact the railways in many ways from infrastructure damage to delayed services, and even risk to life. The map below shows the direction of each gust over a six-hour period, and the way the weather system moves across the UK.



Extreme rainfall can be a serious problem for the railways. The chart below shows predictions of how much rain in millimetres will fall in an area over 24-hours. The scale of each dot corresponds to the amount of rain falling; the larger the dot, the heavier the rainfall will be.



Hot weather can impact a range of Network Rail assets – from tracks and points to signals. Staff too can be affected. In the graph below, the thickness of each line on the map are the maximum air temperatures in Celsius, with thickest areas showing where the temperature is highest.

Ecologist

No interactive: Display

Railway ecologists play a vital role in protecting nature while keeping the railway running safely. They study habitats, monitor wildlife like bats and badgers, and develop innovative solutions to help trains and nature coexist. From advising on conservation efforts to maintaining natural habitats, their work ensures that railway projects support both people and wildlife.

Skills: Problem Solving, Creativity, Teamwork, Listening, Speaking



Nearly 60% of people believe businesses like Network Rail are responsible for resolving environmental issues, such as loss of wildlife. The truth is, we're just one of many companies and organisations across the UK that are trusted to act as custodians of Britain's natural world.



1/3 of the population live within 500 metres of a railway.

But the role we play is, without doubt, an important one – check out these stats and facts which show just how connected the railway is to the people, landscape and wildlife of the UK.



Our estate is the size of 130,000 football pitches.



We have over seven million neighbours across the United Kingdom.

From rare flowers and insects to mighty trees and endangered species, our railway and the land surrounding it is home to a wide range of Britain's natural world. Protecting these neighbours is an important part of our work in creating a more sustainable, more environmentally friendly and an even more reliable railway for all.



The railway goes through every national park in Britain, and every local authority.



Bristol Whitebeams

A rare flowering tree only found on the railway in the Avon Gorge between Somerset and Bristol – and nowhere else on the planet!



Deptford Pink

A very rare wildflower. There are around 30 or so sites across England and Wales where they still flourish – with two of those on the railway.



Coast Redwoods

Mighty trees that grow to about 25m tall and 10m around, weighing up to 50 tonnes. They can be found just outside Bradford-on-Avon station.



Large Blue Butterfly

European Protected Species that depends on wild thyme and red ants for survival. Railway land provides important habitat for this rare butterfly, supporting some of



Sand Lizards

One of Britain's rarest reptiles, is benefiting from conservation efforts in the Southern and Northwest & Central regions, helping to support and restore populations.



Red Squirrels

Not as common as they once were in England, but they do have a stronghold on railway land near Formby, Merseyside.

Coder

Interactive: Intelino

Railway coders are our digital tracklayers; they write code and develop software to make processes simpler and more efficient. These digital problem solvers make sure colleagues have the right systems in place, so the rail network runs smoothly, and passengers get home safe every day.

Skills: Aiming High, Teamwork, Problem Solving, Listening, Speaking, Teamwork, Creativity

Interactive: Test your coding skills on this Intelino train set and see if you can program the perfect journey.

Can you program the train to follow these schedules?

- Work on one schedule at a time.
- Use snaps (coloured tiles) to program the train with colour commands.

High-Speed Train Schedule

Start at Station A → Turn onto the high-speed bridge track → Increase speed to fast → Stop at the high platform of Station C for 2 sec → Decrease speed to medium → Stop at Station A for 2 sec

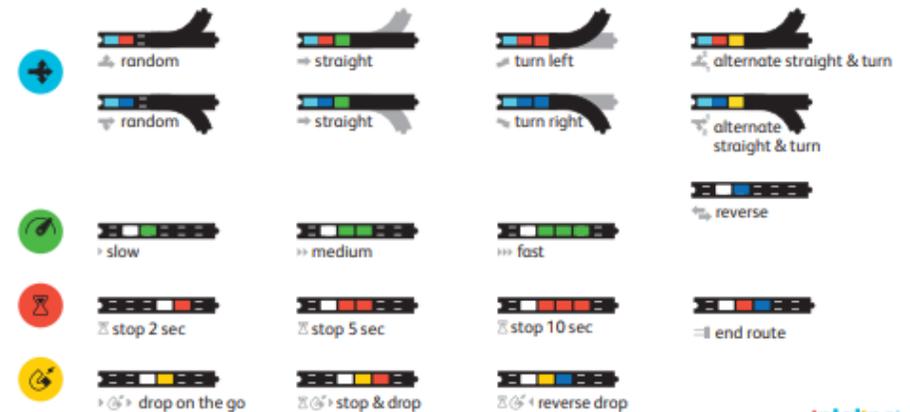
Regional Express Schedule

Start at the Main Station, Platform 1 → Keep straight → Stop at Station C, ground level, for 2 sec → Stop at the Main Station, Platform 2, for 2 sec

1. How to use the smart train



2. Colour code commands



intelino

Railway Teacher

Interactive: Click a face to show how you'd react

Our railway teachers inspire the next generation of rail pioneers. They are safety experts and rail ambassadors rolled into one. They teach young people how to stay safe on the railway and around trains, while sparking their imaginations with the possibilities a career in rail can offer.

Skills: Listening, Speaking, Problem Solving, Creativity, Staying Positive, Aiming High, Leadership, Teamwork

Interactive: How would you react if your friend was about to go onto the tracks to collect their mobile phone?

Question:

How would you react if your friend was about to go onto the tracks to collect their mobile phone?



Freight Manager

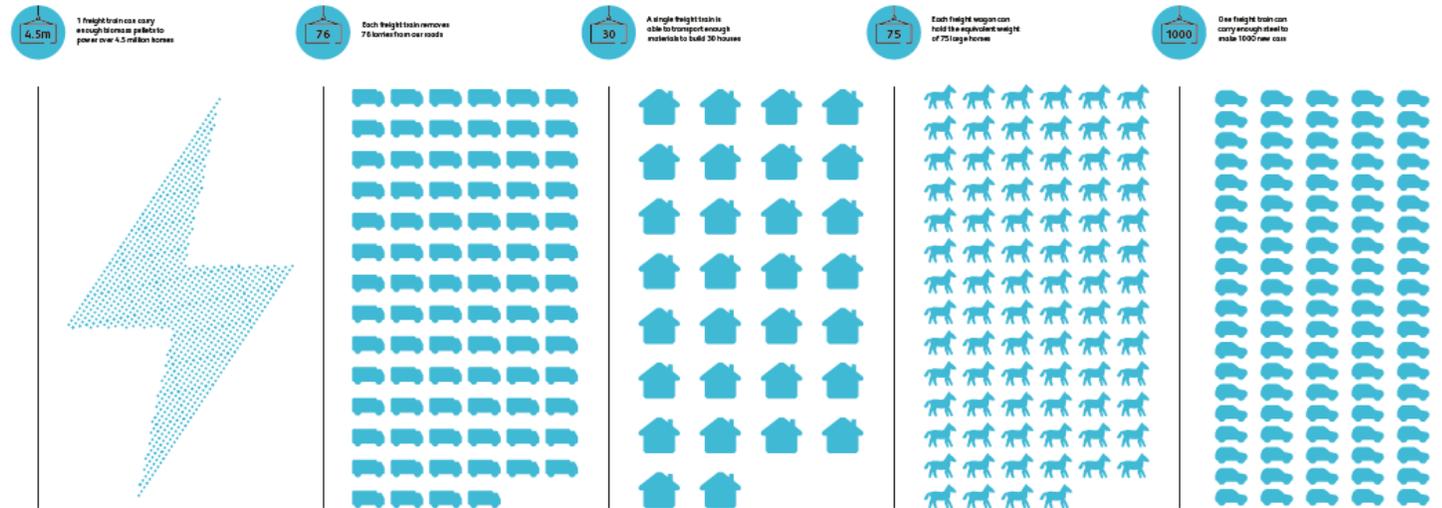
OFFICIAL



No interactive – stats displayed

The freight manager delivers the goods. They work with their customers, like supermarkets, building firms and medical suppliers, to move their products around the country by rail. This means we get everything we need, when we need it – from bananas to bricks, sand to sweeties and medicines to metal. Keeping goods moving is vital for the UK's supply chain and best of all, doing it by rail is cleaner and greener than trucks or lorries.

Skills: Speaking, Listening, Leadership, Problem Solving



Signpost next steps

👉 **Direct young people to our school's page**

[At school - Network Rail](#)

Signpost to the Routes into Rail website which is the go to place about career opportunities in the rail industry [Routes into Rail](#)

Be ready for career questions

Be confident in answering questions about careers at Network Rail. If relevant, mention the different pathways such as:

- **Apprenticeships**
- **Graduate schemes**
- **Work placements and internships**
👉 Visit the Network Rail Early Careers website for details. [Early Careers - Home - Network Rails Early Careers](#)



Key Talking Points

Use these prompts to help spark meaningful conversations with young people:

- “Rail is more than just trains — it’s coders, designers, ecologists, and project managers too.”
- “If you care about the environment, love animals, enjoy gaming, or creating content, there’s a place for you in rail.”
- “Want to explore more? Scan the QR code on each role profile to discover real career stories and pathways into the rail industry.”