

Destination Rail: Race to Construct Helps link learning to careers and the real world.



Destination Rail is a career related learning workshop that is specifically designed to enthuse young people into future careers in the rail industry.

Throughout this hands-on workshop learners will take part in activities lead by our education communicators.

The workshop includes:

1. Briefing Zone – learners find out about railways and new projects such as HS2.
2. Planning Zone – learners find out about the challenge and how to score points, they are then given a few minutes to discuss as a team how they do the challenge.
3. Construction Zone – learners build a railway heading north from London whilst completing completing mini challenges at the same time to score as many points as possible.
4. Recycling Zone – as the teams scores are being confirmed, teams work together to tidy away their K'nex® tracks.

Aim:

By the end of this activity students will:

- Work as part of a team to build a railway track across the country and overcome different obstacles that engineers face.
- Understand the need to compromise and prioritise .
- Become more aware of the different career opportunities in the rail industry.
- Use creativity, teamwork and problem-solving skills to help their team score as many points as possible.



Curriculum Links:

KS1 Version

- English: Reading and comprehension.
- Mathematics:
 - solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations.
 - measure and begin to record mass/weight.
 - counting.
- Science: gathering and recording data to help in answering questions.
- Art: to use drawing, painting and sculpture to develop and share their ideas.
- Design and Technology:
 - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
 - build structures, exploring how they can be made stronger, stiffer and more stable.
- Geography: use basic geographical vocabulary and identify places on a map.

KS2 Version

- English: Reading and comprehension.
- Mathematics:
 - solve number and practical problems.
 - measure, compare, add and subtract lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
- Art: to use drawing, painting and sculpture to develop and share their ideas.
- Design and Technology:
 - generate, develop, model, and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
 - build structures, understanding how they can be made stronger, stiffer and more stable.
- Geography: develop contextual knowledge of the location of globally significant places – both terrestrial and marine – including their defining physical and human characteristics and how these provide a geographical context for understanding the actions of processes.

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Logistics and planning:

The session is designed for around 30 learners, but larger groups may be accommodated upon request. We ask that a teacher is always present throughout the activities, to support learner engagement and manage behaviour.

Set up requirements:

School hall or similar is required. Projector, screen, and power are required.

Why Choose Learn by Design?

We have been delivering engineering focused activities for over seven years and within our team we have education communicators with a specific background in engineering.

We can also use our links with engineering STEM ambassadors to reach out to local ambassadors to support the day.

For further learning this activity goes well with:

- [Power Your World](#)
- [KS2 STEM Day](#)

Watch the videos below to meet some of our Education Communicators and see some of our other STEM workshops >>>



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