

# Bringing the Bullet to Life!

A trail around the Japanese Bullet Train



In this trail...

Instructions are in blue – things for you to do or look at.

Questions are in red – things for you to think about.

Let's get started...

Start at the front of the Bullet Train.

Have a think about what you already know about this train. Have you heard of it? Why?

## Fast and first in the world!

The Bullet Train is famous for being fast.

It's also famous because Japan was the first country in the world to build a high speed, passenger only railway network. This happened in the 1960's, when we were still using steam engines in Britain!

Bullet Fact: Shinkansen means 'new line' in Japanese, and this is what the high speed railway network is called in Japan.

# Why is it so fast?

The Bullet Train here in the museum was built in 1976, and travelled at a top speed of 130 miles per hour. In Japan today, the Bullet Trains run at over 180 miles per hour!

Can you think of any reasons why the Bullet Trains are so fast?

Hint: walk around the side of the train and look at the shape!

## Streamlining

The Bullet Trains are streamlined. You can see the shape is smooth and curved, which means the air flows over it more easily and helps it to go fast.

But how much faster does streamlining actually make a train?

Simon Cran, an expert on high speed train design from Bombardier Transportation, says:

Streamlining makes a train significantly faster. Without it, trains couldn't actually achieve the high speeds they do.



## Inside the Bullet Train...

Walk up the ramp and into the Bullet Train. Have a seat if you like!  
And now let's imagine we're in Japan...



Konnichiha! Welcome aboard the Japanese Bullet Train. You are currently travelling at 130 miles per hour, on one of the first vehicles of its kind.

**Bullet Fact:** In Japan, the carriage you're sitting in would have been part of a 16-car train that could seat 1,200 people.



## Turning the seats

Did you know that people in Japan like to face the direction they're travelling? So on this train you can turn the two-seater seats around.

Have a go yourself at turning the seats around – carefully push the back of the seat up and forward, and spin it round. Please be gentle!

On modern Bullet Trains today, all the seats can be turned at the push of a button.

If you'd like to learn more about the Bullet Train, stay aboard to watch the video. To continue the trail, walk along the centre aisle towards the front.

## Inside the cab



Have a look through the cab window.

**What do you think it would be like to drive a Bullet Train?**

The Bullet Trains are famous for being punctual and safe, as well as fast. One of the reasons is that all the trains are fitted with ATC – Automatic Train Control. A central control centre oversees the whole network and can use the ATC to slow down or stop the trains in an emergency.

**Bullet Fact:** If a Bullet Train is more than 90 seconds late, the driver is questioned about the delay. If this happens to a driver more than 3 times he'll lose his job!



## Continue the trail...

Walk down the steps and back round the front of the Bullet Train.

We hope you've enjoyed exploring the Bullet Train – famous for being the first in the world, fast, safe and punctual. But will we ever see something similar in Britain?

Simon Cran says:

The technology already exists here in Britain, and Bombardier are already building these types of trains for other parts of the world. But when they'll come to the UK is anybody's guess!



# Thank you!

This trail was created by Year 8 pupils from Millthorpe School, York and the NRM Learning Team as part of the 'Collecting Stories' Project.



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