Before 1914 Britain’s railways were mainly staffed by male workers, with only around 13,000 (some 2% of the workforce) being female. However, after the outbreak of war, when so many men had either volunteered or been called up to join the army, something revolutionary had to be done. One way to make up for the lack of workers and keep the railways running was to employ more women.

World War I therefore gave women their first opportunity to take on certain roles on the railway, previously given only to men. However, not everyone was in favour of this. Here are just some of the objections that were put in their way, typical of the views commonly expressed by men (and even some women!) at the time:

• A woman with her “fragile body” could be easily damaged by heavy work, e.g. cleaning a train carriage or moving heavy baggage on a trolley.
• Women ticket collectors would be embarrassed by the bad behaviour of passengers and unprepared for the hurly burly of life on the platform.
• The public’s safety would be in danger, as “flutter brained” women would be easily distracted and would therefore not be suitable for such vital and “solemn” jobs as controlling signals, which required great concentration.
• Wearing skirts would lead to dangers for women as guards when jumping on and off a train. Therefore they would not be suitable for jobs of this type.

What do you think of the reasons given above? Do you agree or disagree with them? Discuss this with a partner. Use a sheet of paper, or the back of this sheet, to note down why you think that women should or should not be allowed to take on jobs which had previously only been occupied by men. This can then be used in a class discussion.

Are there any jobs today in the 21st Century where either men or women predominate?

Why do you think this might be?
SABOTAGE ON THE RAILWAYS

Railways and roads were vital in transporting soldiers and supplies but they could also be used by the enemy for exactly the same purposes. Therefore it was important to try and sabotage railways in an over-run land to prevent them from being used. This was done in 1914 by the retreating Belgian army, who did their utmost to stop their country’s railways being used by the rapidly advancing German troops.

Sabotage was also practised by both sides in WW2 and after D-Day (6th June 1944) it was the job of soldiers such as the Royal Engineers (many of whom were Scots) to assess and repair the damage so that the track could be used by advancing Allied forces.

Look at the different points on the illustration below. If you were a resistance agent in occupied territory how might you stop the transport system from working?

Write on a sheet of paper (or on the back of this one) what you would do.

1. Tunnel Ventilators
2. Tunnel
3. Tunnel Mouth
4. Embankment
5. Cutting
6. Road Bridge
7. River
8. Viaduct
The Quintinshill Rail Disaster, which happened in May 1915 near Gretna, is still the worst accident in the history of Britain’s railways.

It happened when a train carrying troops collided with a stationary local passenger train sitting on the main line. Another passenger train then collided with the wreckage from that first crash and the whole scene became an inferno. Many hundreds of men were killed and injured.

ACTIVITY: You are a journalist. With a partner you are going to write a short report (or present a report to the class) marking the centenary of the accident. Using the internet for research, find out the following facts which you can add into your report: Why not record the results on video or audio?

  When exactly did the accident happen?
  Where were the troops travelling from and to?
  To which army regiment did they belong?
  What were the casualty figures?
  What made the wreckage burst into flames?
  Who were the signalmen on duty at the time?
  How is the accident marked at the site?
  Who was blamed for the disaster and what happened to them?
RAILWAY COACHES: HOW SAFE?

During the First World War the railways came under such a strain that many older coaches were pressed into service to transport troops around the country at high speeds. This contributed to the scale of the 1915 disaster at Quintinshill. Even the newer coaches could be dangerous in an accident. Below are shown three types of coaches dating from the early to mid-20th Century which are part of the collection on display at Bo’ness.

The first photo shows a 6-wheeled wooden bodied coach, with metal underframe, built in 1909 by the Highland Railway. Although this example was electrically lit, coaches similar to this were often lit by gas lamps which were fuelled by a gas cylinder attached to the coach’s underframe. They were not designed to travel at speeds over 50 mph (80 km/h). Each compartment had a door which could be opened at any time by pulling down the window and opening the outside handle. There was no corridor connection to allow access to another coach while the train was moving. The type seen at Quintinshill was even older, with weak oak underframes.

The second shows a Glasgow & South Western Railway 3rd Class Corridor Coach from 1914. It has a metal underframe and a wooden panelled body. The lighting is electrically powered, using batteries which were part of the underframe. This photo showing the unrestored coach illustrates the timber construction of the coach’s bodysides. The bogies (wheeled trucks) at each end both have two pairs of wheels. This type of coach was designed to travel on the railways’ main lines. This was a coach which had a corridor connection at each end, allowing passengers and staff to move easily from one coach to another.

The third photo shows a British Railways Mk.1 coach, built from 1951 onwards. This type of coach, which was built to operate over lines up and down the country, has a metal underframe, and its body consists of a steel framework, with sheet metal cladding on the sides. The coach sits on bogies at both ends, each of which have two pairs of wheels. This type of coach could easily be hauled behind express locomotives travelling at speeds greater than 70 mph (112 km/h). Doors at either end of the corridor were still opened using the outside handle. Corridor connections meant that passengers could safely move from one coach to another while the train was moving.

Which of the coaches above would be the most risky to travel in and why?
Why do you think that less safe coaches had to be used for troops during WW1?
See if you can find out what today’s railway coaches are like. What safety measures do they have in place to protect passengers?
GOODS: A RISKY BUSINESS

During World War 1 many goods trains consisted of extremely dangerous loads such as gunpowder, nitric acid and arms and ammunition of different types. They were carried in wagons similar to those pictured below:

Why do you think it would be dangerous to transport these types of loads on a railway, especially one powered by steam locomotives? Use the internet to find out some facts about these loads and put your answers into the boxes below:

- GUNPOWDER
- NITRIC ACID
- ARMS and AMMUNITION
During both the World Wars it was essential that the railways kept functioning well. Locomotives and rolling stock had to be relied upon to work well and be easy to keep working.

Look at the vehicles pictured below. The first two sets of photos show views of two types of locomotive in their pre and post-war guises. What has been done to make them easier to maintain in wartime? Write your answers in the boxes. Look at the last picture. Why do you think that this would have been one of the most important vehicles in wartime?

A4 Class Express Locomotive

Princess Coronation Class Express Locomotive

Oakbank Oil Company Tank Wagon