Railways

In early 1800s the Industrial Revolution needed quicker, cheaper transport. The Bridgewater Canal was already proving inadequate in the Northwest.

Earliest railways were simple wagons on wooden rails, used to carry coal, etc, short distances to rivers or coasts. By 1810 there were about 300 miles of such 'trackways'.

First Public Railway: 1801 Surrey Iron railway (horse-drawn).

First steam locomotive: 1804 (pulling coal at a mine) built by Trevithick. George and Robert Stephenson were building similar (but improved) locomotives after 1814.

First steam powered railway: 1825 Stockton – Darlington Railway, built by Stephensons for Edward Pease, businessman. Horses were also used but it was proved that locomotives were more efficient.

1830 Liverpool – Manchester line opened – Stephensons asked to be engineers and also asked to build the locomotives after the success of their 'Rocket' at the Rainhill trials in 1829.

In 1841 Isambard Kingdom Brunel (shipbuilder) built the London to Bristol Railway (the Great Western), using the 7 foot gauge to Stephenson's 4 foot 8 $^{1/2}$ inch gauge (width between rails). This was standardised to 4 foot 8 ½ after 1892.

Railways became hugely popular with passengers as well as greatly successful in moving goods – 1844 'cheap trains' Act said that companies should run a certain number of cheap trains each day.

Opposition:

- from canal and road interests
- from those who were afraid of change/badly affected by it
- from those who feared the technology

Effects:

- huge demand for iron and coal (to build railways and because railways could carry these goods cheaply, quickly to other industries)
- massive employment (navvies for building railways and others for manning them and in other industries 'boosted' by railways)
- fresh foods quickly and cheaply carried – significant changes in diet for town dwellers especially
- standardisation/easy availability of all sorts of products and services (slates for all houses all over the country, Cadbury's chocolate available anywhere, national newspapers delivered daily, even the time standardised all over the country)
- decline of roads, and, particularly, canals
- growth of suburbs/new towns
- even poor people could travel more with huge social effects from this
- massive engineering which changed the face of the countryside