



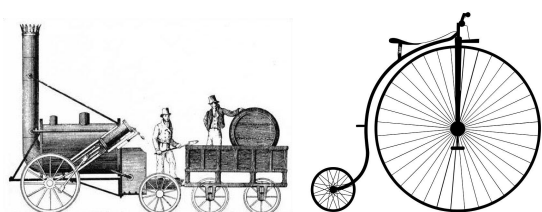
LKS2 History Knowledge and Skills Organiser

Incredible Inventions

Key Knowledge and Skills

Industrial Revolution-before and after

The Industrial Revolution was a time of great change. Innovations such as the spinning jenny and sewing machine, made clothing production possible on a mass scale. There were innovations in transport, including the development of steam engines, the penny farthing bike and after the Victorian period, the motor car. This enabled people to travel longer distances.



Communication was transformed with the electric telegraph and wireless telecommunication.

Working conditions and worker's rights

In Victorian times, workers had few rights and working conditions could be very hard. Children's lives could be very difficult. Working conditions improved in the 1950s. Nowadays, people have the chance to schooling and training, and are protected by laws.



Local History

The history of Scunthorpe has been very much influenced by the development of the steel industry.

In **1859**, ironstone was rediscovered by Rowland Winn on the local Winn estate. Construction of Scunthorpe's first ironworks, the Trent Ironworks, began in 1862. Five years later, ironmaking started at the Trent Ironworks on 26th March **1864**; work also started on the building of Frodingham Ironworks in 1864;

Construction of the North Lincoln Ironworks began in **1866**

In **1872** Redbourn Hill Iron and Coal Company was established with its 2 blast furnaces blown in 3 years later in 1875. In 1876, the Appleby Ironworks blew in its first blast furnace.

Progress was rapid and **1890** proved to be a monumental year in our history as steel manufacturing started in Scunthorpe.

In **1911**, construction work started on John Lysaght's Iron and Steelworks (Normanby Park) with production underway the following year in **1912**.

In **1912**, the Appleby and Frodingham works merged to become Appleby-Frodingham Steel Company.

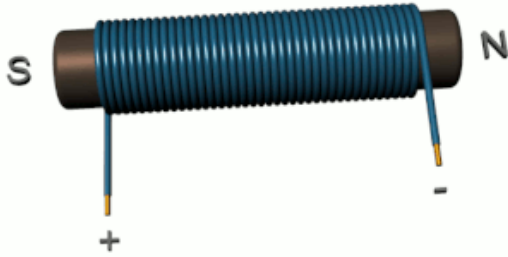
World War I (**1914-1918**) and World War II (**1939-1945**) saw women taking the place of men in the steelworks whilst they had to go and fight in the war. They helped to create plate steel for ships, gun barrels, tank armour and aircraft parts including for the Spitfire.

Key Vocabulary

Word	Definition
electromagnet	A device consisting of a core of magnetic material surrounded by a coil through which an electric current is passed to magnetize the core.
engineer	A person who designs and builds complex products, machines, systems or structures.
evolve	To develop gradually; especially to change from something simple to something more complicated.
innovation	A new method, idea or product.
invention	Something that has never been made before.
inventor	Someone who has invented something or whose job is to invent things.
industry	Economic activity concerned with the processing of raw materials and manufacture of goods in factories.
Iron ore	Rocks and minerals from which metallic iron can be economically extracted.
Kerosene lamp	A type of lighting device that uses kerosene as a fuel.
Lightbulb	A device used to convert electricity into light.
Locomotive	A locomotive or engine is a rail transport vehicle that provides the motive power for a train.
period	A time in history, e.g. the Victorian period was the period of history when Queen Victoria was reigning.
Primary source	The evidence of history, original records or objects created by participants or observers at the time historical events occurred or even well after events, as in memoirs and oral histories.
Printing press	A machine that prints books, newspapers etc.
revolution	A time where there is great change, e.g. the Industrial Revolution transformed society in many ways.
Secondary source	A secondary source is one that gives information about a primary source.
Steam engine	A steam engine is an engine which uses steam from boiling water to

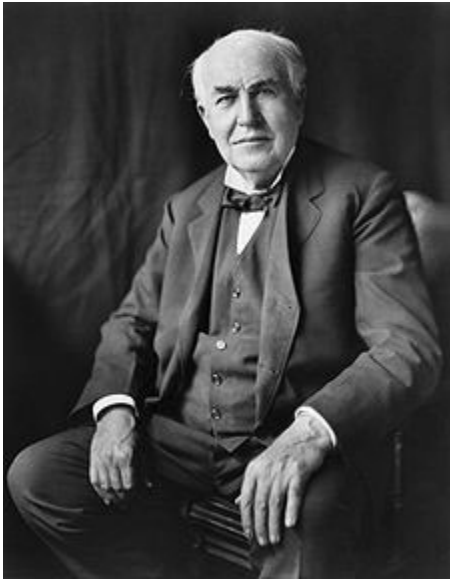
Electromagnets

Scientists such as William Sturgeon developed them and they are used in the sorting of scrap metal as part of the steel making process. .



Thomas Edison and the Lightbulb

By January 1879, at his laboratory in Menlo Park, New Jersey, Edison had built his first high resistance, incandescent electric light. It worked by passing electricity through a thin platinum filament in the glass vacuum bulb, which delayed the filament from melting. Still, the lamp only burned for a few short hours.



In **1939**, the Queen Mary and Bess blast furnaces were built at Appleby Frodingham.

In **1954**, the Queen Anne and Victoria blast furnaces completed the set of four blast furnaces at Appleby Frodingham.

The Anchor development started to be built as an extension to the Appleby Frodingham site in **1970** including 10 miles of roads and 30 miles of railways, so that ore could be brought in from a new ore terminal at Immingham.

The Queen visited the Anchor development at the Appleby Frodingham Steelworks to give it her blessing on 6th May **1974**.

Redbourn's last furnace was shut down in October **1979** and its blast furnaces were demolished in 1980.

The Humber Bridge was completed in July **1981** using large quantities of steel from Scunthorpe.

The Coke Ovens at Lysaght's closed down in **1980** and the whole works closed down in February **1982**. The last charge and the last cast at the Normanby Park (Lysaght's) Works took place on 25 February **1981**.

November **2018** - Scunthorpe Steelworkers Sculpture officially unveiled after seven years of planning.

March **2020** - British Steel taken over by the Jingye Group in China.

We will make links to steelmaking in Sheffield following a visit to Magna.

Looking at historical sources:

Look at maps of the different periods. How has Scunthorpe changed as a settlement?

Local history sources: photographs, evidence from people who worked in the past, and those who work there using

make it move.

Steel

Steel is an alloy made up of iron with typically a few tenths of a percent of carbon to improve its strength and fracture resistance

steelworks

A factory where steel is manufactured.

The Industrial Revolution

The period of time during which work began to be done more by machines in factories than by hand at home.

	100 Years of Steelmaking in Scunthorpe - a special publication by the Scunthorpe Evening Telegraph.		
Famous Inventors			
Richard Trevithick British engineer Richard Trevithick is generally recognized as the inventor of the steam railway locomotive (1803). Isambard Kingdom Brunel Famous engineer who designed and constructed railway lines, bridges, tunnels and docks around the country. Joseph Wilson Swan and Thomas Edison They both independently invented an incandescent lamp by heating a filament with an electric current in a vacuum. British scientist William Sturgeon invented the electromagnet.			