

Teacher's Pack

**STEM
BOX**

Wind Power in Falkirk

**Background
Information**



Background Information

COAL: Powering the Industrial Past

Do you know what the most important energy source in Falkirk was before wind power?

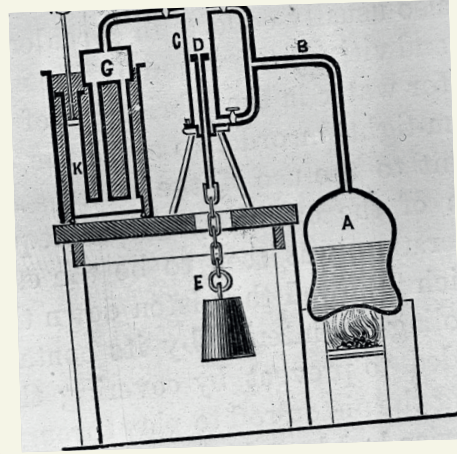
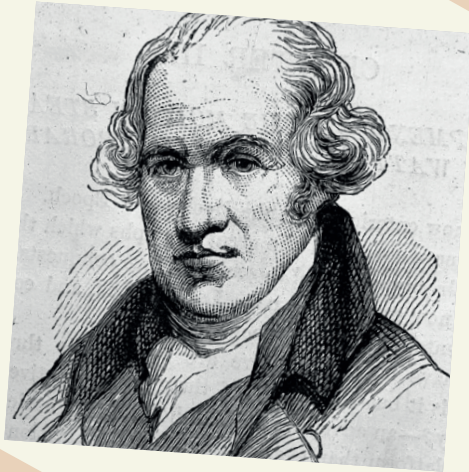
COAL!



Source: Unsplash

Coal was THE fuel of the Industrial Revolution, and the Falkirk are had it in abundance – just like today, we harness the wind power here because Falkirk has plenty of wind, 250 years ago coal took off as the main energy source simply because was so much of it to be found right here beneath our feet

All over the world for 1000s of years coal has been mined from the earth and burnt to generate heat. By the beginning of the 17th century, coal heughs and trenches had appeared at Carriden and Grangemouth.



James Watt portrait and his coal powered steam engine

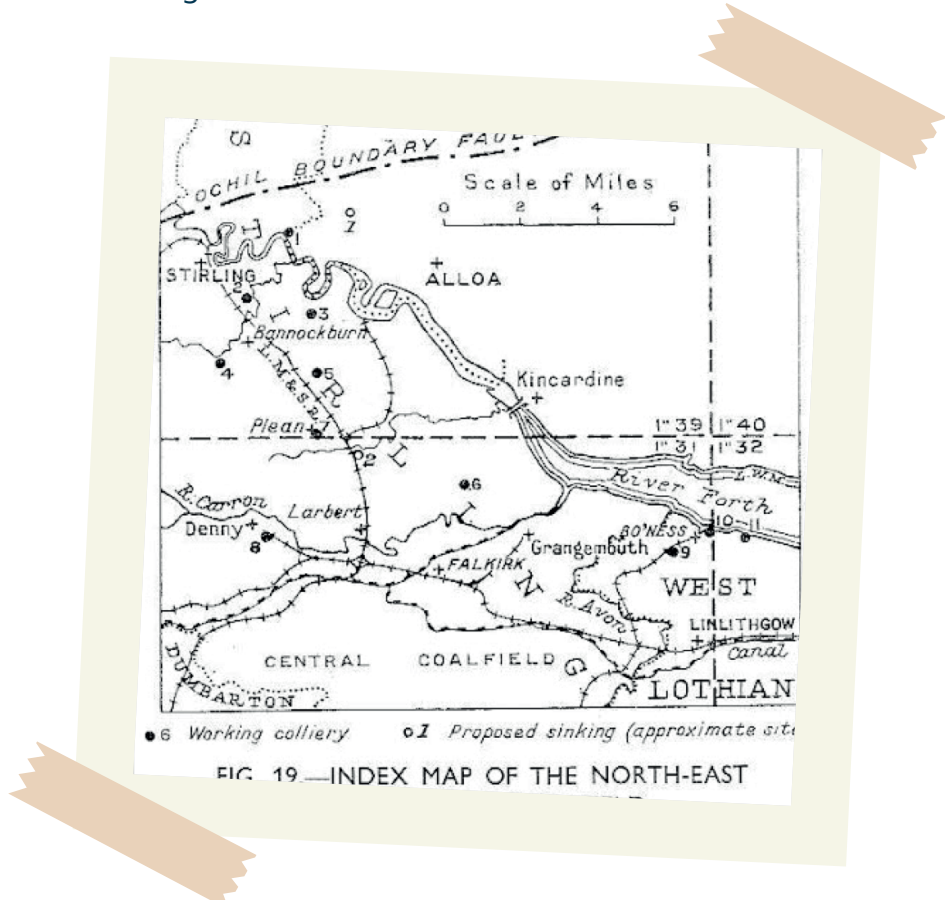
Credit: Falkirk Archives

It was in Bo'ness, no less, that James Watt developed the world's first coal-powered steam engine in 1769. It was thanks to this machine that steam engines became more powerful and efficient – this made them perfect for use in factories and mills, as rates of production could increase. The spread of steam in turn increased demand for coal massively so coal and steam expanded together.

From this time (mid 18th century) onwards, coal would eventually become the most important energy source in the world, single-handedly fuelling the fires of the Industrial Revolution: from the engines of transport (steamships, locomotives) to the heavy machinery of industry: iron foundries, brick-making, sieve-making and file-making – all of these industries and many more relied on coal.

In Falkirk, the Carron Iron Company increased demand for coal in the 18th century and transport was made east with the opening of the Forth & Clyde Canal.

Collieries (coal mines) then popped up all over the district and provided thousands of local people (men, women and children) with reliable incomes and housing. The coal mines were a central and significant aspect of everyday social and communal life in Falkirk's towns and villages.



Map of North East Stirlingshire Coalfields, 1944.

Credit: © Scottish Mining Website <http://www.scottishmining.co.uk/Indexes/STI-1944.jpg>



Female mine workers at Redding coillery c.1890.
Credit: Unknown Photographer via Falkirk Archives.



Bridgeness Colliery Smithy, c.1870-1900.
Credit: Unknown Photographer via Falkirk Archives



Coillery Equipment (Mid 20th Century)
Credit: © Falkirk Herald via Falkirk Archive

However, coal mining was dangerous work. Many local accidents in the coal mines have been well documented - see the Redding Pit disaster, for example <https://www.heraldscotland.com/opinion/19199826.remember-redding-pit-disaster-1923/>

Also, working and living in close proximity to burning fossil fuels was likely to leave local people with serious and often fatal health problems. This, along with cheaper alternative sources of energy in the form of oil and gas in the 1960s/70s, led to the gradual decline of coal as a main energy source in Scotland and the UK.

It wasn't until the end of the last century that emerging scientific research started to make a compelling case against fossil fuels on account of their damaging impact on the environment and climate change. There has since been a significant shift towards greener, 'cleaner' energy sources, such as wind and solar power, and biofuel.

This doesn't take-away from the fact that Falkirk, as a densely populated area in Scotland's central belt, owes its very existence to coal. The legacy of coal mining is visible everywhere: from the 'blue corridor' canal network (originally built to transport coal), to visible environmental scars, pollution and impact on climate change, and the current emphasis on wind power and other renewables.



Foggermountain open cast coal mine, Avonbridge, 1978.
Credit: Photographer: Thomas McInnes via Falkirk Archives

OUR STORIES

FALKIRK

Our Stories <http://www.ourstoriesfalkirk.com/>

To discover more about Falkirk's rich industrial heritage, we recommend that you visit the Our Stories website. This public archive of local memories, images and written work showcases the contributions of a wide variety of local professionals, volunteers and community groups who have worked with the Great Place team to create high-quality original and re-purposed content.

