

## Industrial Revolution Girl - AD 1860

Traditionally it is stated that the Industrial Revolution took off in Wales between 1730 and 1850. Before these dates, with a population of only about 500,000, Wales was still an overwhelmingly rural country. However by 1851, Wales was the world's second leading industrial nation, behind England.

Wales's first industrial town was Merthyr Tydfil created because of the development of the ironworks there. By 1830 Monmouthshire and east Glamorgan were producing half the iron exported by Britain

During this time machinery powered by steam were replacing manual labour and working in factories became more common than working from home. Great iron ships and railways around the world were being built so Welsh steam coal became the fuel of choice for boilers everywhere. There were also new techniques being developed in iron smelting which needed coal (as coke) as fuel.

Wars also encouraged the need for heavy industry. Wars including:  
The Seven Years' War (1756-63),  
The American War of Independence (1775-83)  
French Revolutionary + Napoleonic Wars (1793-1802, 1803-15)

The immigration of workers to Wales increased immensely at this time. In 1801 the population of Monmouthshire was 45,000 however by 1901 it had increased to 450,000. The flood of immigrants had a detrimental effect on the Welsh language and in some areas the language ceased to be spoken entirely.

Mining and industrial workers and their families experienced appalling work and living conditions resulting in children having to work because families were very poor. It was not unusual for children to work up to eight or twelve hours a day, six days a week.

Overcrowding and unsanitary conditions led to outbreaks of cholera. In 1849 there was an outbreak in Merthyr, Dowlais and Aberdare, which claimed more than 800 lives. There were outbreaks of cholera in Wales in 1832, 1848, 1854 and 1866.

### **Some notable dates**

**1807** - John Buddle invented an air pump to be used in mines.

**1815** - Sir Humphrey Davy patented his safety lamp which meant that a miner could have light underground without having to use the exposed flame of a candle. In theory this meant that the risk of explosion was reduced. However, even though it was cited as causing many accidents in the beginning, it did improve in design over the years and become widely used by the end of the 19<sup>th</sup> century. The lamp became known as the "Miners Friend."

**1833** - The Factory Act stated that children under 9 years of age could work also that employers must have a medical or age certificate for child workers. Children between the ages of 9-13 would not be allowed to work more than 9 hours a day while children between 13-18 were to work no more than 12 hours a day. Children would not be allowed to work at night. Added to this two hours of schooling were compulsory each day for children. Four factory inspectors were appointed to enforce the law throughout the whole of the country. However, the passing of this Act didn't mean that employers adhered to it or that the mistreatment of children stopped overnight.

**1831** - The Merthyr Rising. Coal miners and others who worked for William Crawshay took to the streets of Merthyr Tydfil, calling for reform, protesting against the lowering of their wages and general unemployment. Dic Penderyn became a martyr to industrial workers.

**1832** - The Reform Act concerning elections to the British Parliament gave representation to some of the Industrial cities

**1839** - The Chartist Movement uprisings and the Newport Rising showed the growing concerns and awareness of the work force as to how important they were to the continuing prosperity of Britain.

**1840** - Lord Shaftesbury persuaded Parliament to set up a Royal Commission to investigate conditions in the mines.

**1842** - The Mines Report - Parliament published a report about the state of coal mining in Britain and its contents shocked the nation. The report commented on brutality, accidents, long hours, associated lung diseases, and horrific injuries. It was the first government report to use pictures. The public were particularly horrified by the work of the young 'trappers' (who shut and opened the doors down the mine), the nakedness of males and females working together, and what was seen as the lack of religion or morality among the young workers. The report also informed the public that children under five years of age worked underground as trappers for 12 hours a day and for 2 pennies a day; older girls carried baskets of dug coal which were far too heavy for them and caused deformities in these girls.

**1842** The Mines Act was passed by the Government forbidding the employment of women and girls and all boys under the age of ten down mines. In reality it is believed to have been widely ignored. It also appointed inspectors to see that the provisions of the Act were enforced. To replace female and child labour the pit pony was more widely introduced.

**1850** - Inspection of mines was strengthened when inspectors were given permission to go underground to investigate conditions, and a Royal School of Mines was established the following year to train inspectors.

**1860** - The lower limit for the age of boys working in the mines was raised to 12.

**1870** - Forster's Education Act declared that all parts of Britain had to provide schooling for children aged 5 to 12. However, as not all of these schools were free, many families couldn't afford the 'school's pence' each week. As it was not mandatory to attend school many children still didn't go to school and continued to work instead.

**1872** - Various safety measures were introduced to make coal mines safer, including a requirement that managers of mines be correctly trained and certified.

**1873** - The Coal Owners Association was founded. A sliding pay scale was soon devised which meant that if world prices for coal fell, miner's wages were lowered to protect their profits. This led to tremendous hardship and unrest.

**1880** - Attendance at school became mandatory. All children had to attend a school until they were 10 years old.

**1889** - The school leaving age was raised to 12

**1891** - The school's "pence fee" was abolished and schools became free.

**1908** - The working day was limited to 8 hours

**1930** - The working day was reduced to seven and a half hours

Links

**Mynydd Newydd Colliery - Treboeth Swansea**

<http://www.welshcoalmines.co.uk/GlamWest/Mynydd%20Newydd.htm>

**General Information on the Industrial Revolution**

[http://www.bbc.co.uk/wales/history/sites/themes/guide/ch15\\_industrial\\_revolution.shtml](http://www.bbc.co.uk/wales/history/sites/themes/guide/ch15_industrial_revolution.shtml)

**Below is the link to the BBC excerpt from:**

Welsh History: Famous People Jane Pritchard and Susan Rees  
Children in Victorian Wales.- a pit girl talking about life underground  
[http://www.bbc.co.uk/wales/history/media/pages/h\\_victorians\\_childlabour.shtml](http://www.bbc.co.uk/wales/history/media/pages/h_victorians_childlabour.shtml)

**Link to RCAHMW**

<http://www.rcahmw.gov.uk/HI/ENG/Heritage+of+Wales/Across+Time/First+Industrial+Nation/>