

Revolution Manchester Digital Sculpture

The huge spiral digital sculpture in the Revolution Manchester Gallery celebrates 24 of the scientific and industrial achievements that made Manchester a world leader from the late eighteenth century through to the present day.



1781 – first use of steam power in a cotton mill

Richard Arkwright's mill on Shude Hill in Manchester used a Newcomen-type steam engine to assist a waterwheel.



1798 – Ancoats, the world's first industrial suburb

McConnel & Kennedy and A. & G. Murray built their first mills in Ancoats. At seven and eight storeys high, these mills were the skyscrapers of their day.



1803 – the first table of atomic weights

John Dalton revealed his table of atomic weights in a lecture to the Manchester Literary and Philosophical Society in October 1803.



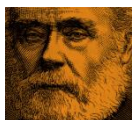
1817 – the first municipal gasworks

The Manchester and Salford Police Commissioners opened Manchester's first gasworks. A commemorative plaque marks its location.



1830 – world's first wholly steam-powered railway

The Liverpool and Manchester Railway was also the first railway to be purpose-built to carry both goods and passengers.



1840 – world's first standard screw thread

Joseph Whitworth developed an accurate end-measuring machine and specified the Whitworth screw thread, which later became a British Standard.



1851 – world's largest reservoir scheme

John Frederic La Trobe Bateman devised Manchester Corporation's Longdendale reservoir scheme, which lies along Derbyshire's River Etherow.



1862 – world's first continuous rod rolling mill

The first commercial rod rolling mill was the invention of George Bedson, Works Manager at the Manchester wire works of Richard Johnson & Brother.



1874 – world's largest commercial room

Completed in October 1874, the third Manchester Royal Exchange had a trading room measuring 206 by 96 feet (63 by 29 metres).



1909 – first all-British aeroplane to fly

Alliott Verdon Roe's Triplane was built at Brownsfield Mill in Manchester. It was first successful British aeroplane with a British engine.



1912 – first enclosed-cabin monoplane to fly

Roe's Avro F monoplane was ahead of its time. Enclosed-cabin aircraft only became standard in the 1920s.



1913 – Moseley's Law, the first proof of atomic numbers

Henry Moseley's work on the X-ray spectra emitted by atoms provided the first scientific explanation of atomic numbers. Moseley died at Gallipoli in 1915.



1922 – Europe's first children's radio programme

The BBC's 2ZY radio station in Manchester began broadcasting in November 1922. *Kiddies Corner* was one of its early regular programmes.



1925 – UK's first million-volt arc

Ferranti Ltd produced a million-volt arc in the high-voltage testing area of the Crown Works in Oldham. This created a market for million-volt transformers.



1929 – Europe's largest newspaper printing house

Kemsley House was the northern head office of Allied Newspapers. Today the original frontage houses the Printworks leisure complex.



1948 – world's first stored-program computer

The Small Scale Experimental Machine, nicknamed the 'Baby', ran its first program at the University of Manchester on 21 June 1948.



1951 – world's first commercial computer

The Ferranti Mark I was the commercial computer based on the expanded 'Baby'. Alan Turing wrote the first user manual.



1955 – world's first punchcard-controlled machine tool

Kearns & Co. Ltd of Altrincham made a numerically controlled (NC) boring machine, the first British NC machine tool.



1956 – UK's first nuclear reactor

Calder Hall in Cumbria was the world's first commercial nuclear power station. Metropolitan-Vickers of Trafford Park supplied the control systems.



1960 – UK's longest-running continuous drama series

Coronation Street first aired in December 1960. It was filmed at Granada TV's Manchester studios, the first purpose-built television studios in Britain.



1962 – UK's tallest building

The Co-operative Insurance Services (CIS) Tower was Manchester's tallest building until 2007, when the Beetham Tower was completed.



1976 – first European microprocessor

The Ferranti F100-L microprocessor was made at Gem Mill in Oldham, under the direction of Alan Shepherd.



1981 – world's first second-generation Synchrotron Radiation Source

The SRS Laboratory at Daresbury was the world's first dedicated SRS Lab. It hosted an average of 200 hours of research per day.



2004 – discovery of graphene, the thinnest and strongest material

Graphene is a form of carbon that is only one-atom thick. University of Manchester physicists Andre Geim and Kostya Novoselov won the 2010 Nobel Prize in Physics for its discovery.