

Engineering history

Suggested study for schools' history curriculums

Association for Consultancy and Engineering

2010



Engineering history

The history of engineering contains many inspiring and interesting stories. ACE believes that school history curriculums would benefit from a study of the significant figures in engineering through the ages. This would help children to appreciate how the modern world was built and how it might be improved.

In this document, ACE has identified a list of significant figures from across the spectrum of engineering. All of the names included have made significant contributions to their fields of technology that are still experienced today.

Should the school curriculum emphasise British engineers?

ACE recommends that school history lessons reflect the contribution that engineers from around the world have made in advancing technology and improving lives.

Engineering is a global industry, one in which British engineers have played – and continue to play – a leading role. It is important that British schools reflect the achievements of British engineers, but there should be a fair balance of representation of engineers from around the world.

The ultimate objective should always be to ensure that truly great engineering achievements are studied.

Notable engineers from history

The following selection of key figures from the history of engineering provides a broad cross section of nationalities, eras and engineering disciplines. It is not intended to be an exhaustive list, but should provide a starting point for teachers and curriculum designers seeking to cover the history of engineering.

Archimedes

c.287 BC – c.212 BC, Greece. Regarded as one of the leading figures of mathematics, physics and engineering of antiquity. The invention of the Archimedes Screw, a design still used today, is attributed to him.

Sir Ove Arup

1895 – 1988, UK. Sir Ove was the lead designer on the Sydney Opera House.

John Logie Baird

1888 – 1946, UK. Baird was a pioneering developer of television, including the world's first fully electronic colour television broadcast.

Alexander Graham Bell

1847 – 1922, UK. Bell invented the first practical telephone.



Isambard Kingdom Brunel

1806 – 1859, [UK](#). Lead engineer of the Great Western Railway. Brunel was placed second in the BBC's 2002 list of 100 greatest Britons.

Marc Isambard Brunel

1769 – 1849, [France](#). Father of Isambard Kingdom Brunel and former chief engineer of the City of New York and builder of the first Thames Tunnel.

Willis Carrier

1876 – 1950, [USA](#). Carrier was the inventor of modern air conditioning.

Alberto Santos Dumont

1873 – 1932, [Brazil](#). An aviation pioneer, Dumont developed the first fixed wing aircraft to fly.

Dr Lyn Evans

Born 1945, [UK](#). Dr Evans was project leader on the Large Hadron Collider at CERN, Switzerland.

Zénobe Gramme

1826 – 1901, [Belgium](#). Gramme's work led to the first industrially useful electric motor.

Sarah Guppy

1770 – 1852, [UK](#). Guppy invented a method for making safe piling for bridges which was subsequently used by Thomas Telford.

Kees Immink

Born 1946, [Netherlands](#). Immink is notable for his work in developing the Compact Disc, DVD and Blu-ray Disc.

Guglielmo Marconi

1874 – 1937, [Italy](#). Marconi is globally famous as the developer of the radiotelegraph.

George de Mestral

1907 – 1990, [Switzerland](#). De Mestral was the inventor of Velcro.

Sir Morien Morgan

1912 – 1978, [UK](#). Sir Morien was an aeronautical engineer who oversaw the development of Concorde.

Sir Basil Mott

1859 – 1938, [UK](#). Sir Basil was engineer of the Mersey Tunnel and the Morden extension of London Underground's Northern Line.



Sir Clive Sinclair

Born 1940, UK. Sir Clive is one of the UK's best known entrepreneurs and inventors. He invented the first slimline pocket calculator and was a pioneer of affordable home computing.

Thomas Telford

1757 – 1834, UK. Telford engineered many notable canal structures, including the Pontcysyllte Aqueduct in Wrexam, the longest and highest aqueduct in Britain that is now a World Heritage Site.

Alan Turing

1912 – 1954, UK. Turing was a pioneer of computer science and cryptography whose work played a pivotal role in breaking the Enigma codes, among others, during World War 2.

Leonardo da Vinci

1452 - 1519, Italy. Noted for his work as a civil engineer, da Vinci devised many notable designs including movable defences for the city of Venice and a bridge across the Bosphorus in Istanbul.

Sir Frank Whittle

1907 – 1996, UK. Inventor of the jet engine; his work revolutionised international transport and helped to open up air transport for the many.

Steve Wozniak

Born 1950, USA. Co-founder of Apple Computer; the company continues today as a prominent developer of consumer technology.