The University of Cambridge has taught and hosted some of the most influential mathematicians throughout history. An extraordinary number of pioneering thinkers from Cambridge have produced work that continues to influence mathematical research and many other areas of human endeavour, and many of our current mathematicians continue in this tradition. These include:

Robert Recorde (c.1512-1558)
Welsh physician and mathematician credited with inventing the equals (=) sign.

Isaac Newton (1643-1727)
Mathematician and physicist who continues to be recognised as one of the most influential scientists of all time. Formulated the laws of motion and made significant contributions to optics.

Brook Taylor (1685-1731)
Discovered what came to be known as Taylor's Theorem and the Taylor Series, which approximates any n-times differentiable function by a nth-order polynomial.

Charles Babbage (1791-1871)
Created the 'difference engine' to perform mathematical calculations, and later the 'analytical engine', which provided the foundations for many of the fundamental ideas behind today's computers. He famously worked with Ada Lovelace, the first programmer.

George Green (1793-1841)
Developed the famous Green's Theorem, relating line integrals to double integrals over a region. A self-taught mathematician, he was the son of a baker and worked as a miller until he became an undergraduate at Cambridge at the age of 40.

Lord Kelvin (1824-1907)
Mathematical physicist and engineer whose triumphs included the first practical trans-Atlantic cable, a tidal prediction machine and the standard marine compass. His pioneering thermodynamics work is commemorated in the absolte temperature scale of degreed Kelvin.

James Maxwell (1831–1879)
Mathematician who carried out revolutionary work on electricity and magnetism and on the kinetic theory of gases. Formulated 'Maxwell's Equations', a major breakthrough in the field of electrodynamics.

Lord Rayleigh (1842-1919)
Physicist who co-discovered Argon, for which he won the Nobel Prize for physics in 1904, and discovered a phenomenon now named Rayleigh scattering, which explains why the sky is blue.
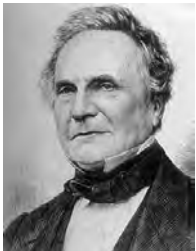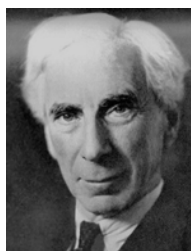
Philippa Fawcett (1868-1948)
Mathematician and educationalist who conducted research in fluid dynamics. In 1890 she became the first woman to obtain the highest score in the Mathematical Tripos exams. She was the daughter of suffragist Millicent Fawcett.

Bertrand Russell (1872-1970)
With A. N. Whitehead he wrote Principia Mathematica, an attempt to create a logical foundation for mathematics, and one of the most famous texts ever written on the foundations of mathematics. As well as a mathematician, he was a philosopher, historian and political activist.
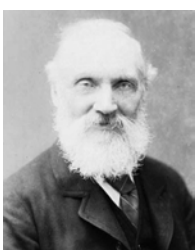
Srinivasa Ramanujan (1887-1920)
A self-taught Indian mathematician, he made extraordinary contributions to many areas of pure mathematics, in spite of having almost no formal education. Among his many discoveries are the Ramanujan prime and the Ramanujan theta function.
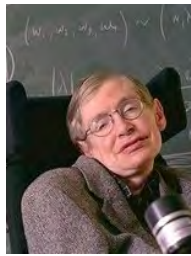
Mary Cartwright (1900-1998)
First female mathematician to be elected to the Royal Society. With J.E. Littlewood she was the first to analyse a dynamical system with chaos.

Paul Dirac (1902-1984)
Creator of the complete theoretical formulation of quantum mechanics. Among his many achievements was the prediction of the positron. His contributions to quantum mechanics won him the Nobel prize in Physics.

Alan Turing (1912-1954)
Mathematician, wartime code-breaker, and computer science pioneer. Reformulated Gödel's results on decidability, creating what is now known as Turing Machines, which are capable of simulating the logic of any computer algorithm.

Abdus Salam (1926-1996)
Pioneered the mathematics behind the first Grand Unified Theory of physics, using Lie Algebras. In 1979 he won the Nobel prize in physics for his contribution to the electroweak unification. Many of his theories have been proven by experiments conducted in the Large Hadron Collider.

James Lighthill (1924-1998)
His pioneering work in fluid dynamics and noise reduction was used in the design of Concorde. He founded nonlinear acoustics, and showed that the same nonlinear equations could model waves in rivers and road traffic flow. He also helped develop communication satellites, and applied fluid mechanics to understanding blood flow and breathing.

James Ezeilo (1930-2013)
Often referred to as the father of mathematics in Nigeria, his work included pioneering use of Leray-Schauder degree theory. As a PhD student of Mary Cartwright in Cambridge he advanced the theory of non-linear differential equations of the third order.

Steven Hawking (1942-2018)
One of the most well-known present-day mathematicians, his work focused mainly on cosmology. He predicted that black holes emit radiation and proposed a theory that could unify general relativity and quantum mechanics. He published many popular science books, including 'A Brief History of Time'.

Anne Davis (1951-)
Works in the field of theoretical and particularly modified gravity theory. She has been one of the leading proponents of the chameleon particle theory that potentially accounts for the observed acceleration of the universe which presents a major cosmological puzzle.

David Spiegelhalter (1953-)
Statistician and Winton Professor of the Public Understanding of Risk. His research includes the Bayesian approach to clinical trials and epidemiology. His blog, 'Understanding Uncertainty', explains statistics to a general audience

Frances Kirwan (1959-)
Her work in algebraic and symplectic geometry has earned her the Senior Whitehead Prize, and has advanced the understanding of the structure of geometric objects by investigating their algebraic and topological properties. She was the second youngest President of the London Mathematical Society.

Tim Gowers (1963-)
His early work on Banach spaces earned him the Junior Whitehead Prize. He specialises in combinatorics and combinatorial number theory, among other fields, and was awarded the Fields Medal for his many mathematical achievements. Pioneered internet-based "massively collaborative mathematics".

Come and join one of the best Mathematics Faculties in the world. Some of the new Cambridge mathematicians of today will shape the future of mathematical research and use mathematical theories and equations to advance fields as diverse as medical diagnostics, cryptography and internet security, the behaviour of avalanches, epidemiology, the prediction of financial markets, climate change, linguistics, art restoration, communication networks, from the nervous system to the internet, and many more.
Be one of them!