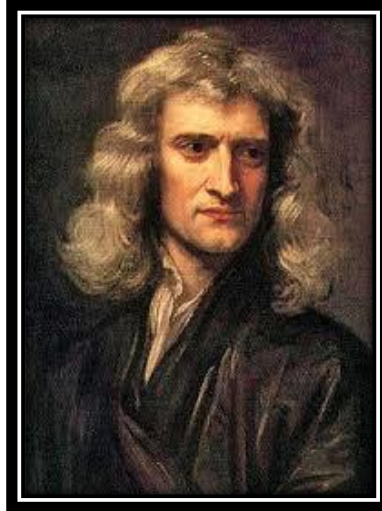


FAMOUS INTERNATIONAL SCIENTISTS

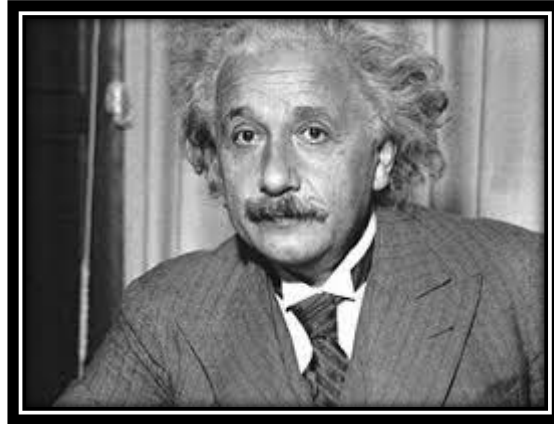
1. Isaac Newton 1643 – 1727



Sir Isaac Newton was an English physicist and mathematician who is widely recognised as one of the most influential scientists of all time and as a key figure in the scientific revolution. His book *Philosophiæ Naturalis Principia Mathematica* (“Mathematical Principles of Natural Philosophy”), first published in 1687, laid the foundations for classical mechanics. Newton made seminal contributions to optics, and he shares credit with Gottfried Leibniz for the development of calculus.

Newton’s *Principia* formulated the laws of motion and universal gravitation, which dominated scientists’ view of the physical universe for the next three centuries. By deriving Kepler’s laws of planetary motion from his mathematical description of gravity, and then using the same principles to account for the trajectories of comets, the tides, the precession of the equinoxes, and other phenomena, Newton removed the last doubts about the validity of the heliocentric model of the Solar System. This work also demonstrated that the motion of objects on Earth and of celestial bodies could be described by the same principles. His prediction that Earth should be shaped as an oblate spheroid was later vindicated by the measurements of Maupertuis, La Condamine, and others, which helped convince most Continental European scientists of the superiority of Newtonian mechanics over the earlier system of Descartes.

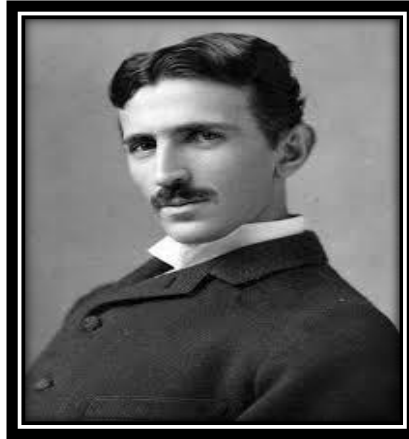
2. Albert Einstein 1879 – 1955



Albert Einstein was a German-born theoretical physicist. Einstein's work is also known for its influence on the philosophy of science. He developed the general theory of relativity, one of the two pillars of modern physics (alongside quantum mechanics). Einstein is best known in popular culture for his mass–energy equivalence formula $E = mc^2$ (which has been dubbed “the world’s most famous equation”). He received the 1921 Nobel Prize in Physics for his “services to theoretical physics”, in particular his discovery of the law of the photoelectric effect, a pivotal step in the evolution of quantum theory.

Near the beginning of his career, Einstein thought that Newtonian mechanics was no longer enough to reconcile the laws of classical mechanics with the laws of the electromagnetic field. This led to the development of his special theory of relativity. He realized, however, that the principle of relativity could also be extended to gravitational fields, and with his subsequent theory of gravitation in 1916, he published a paper on general relativity. He continued to deal with problems of statistical mechanics and quantum theory, which led to his explanations of particle theory and the motion of molecules. He also investigated the thermal properties of light which laid the foundation of the photon theory of light. In 1917, Einstein applied the general theory of relativity to model the large-scale structure of the universe.

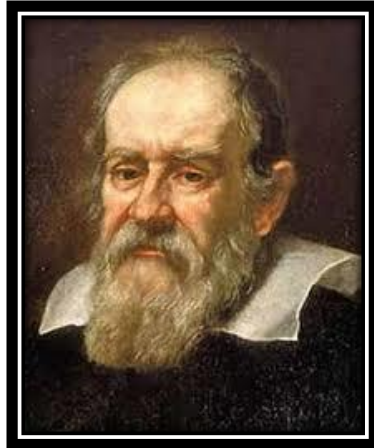
3. Nikola Tesla 1856 – 1943



Nikola Tesla was a Serbian American inventor, electrical engineer, mechanical engineer, physicist, and futurist best known for his contributions to the design of the modern alternating current (AC) electricity supply system.

Tesla gained experience in telephony and electrical engineering before immigrating to the United States in 1884 to work for Thomas Edison in New York City. He soon struck out on his own with financial backers, setting up laboratories and companies to develop a range of electrical devices. His patented AC induction motor and transformer were licensed by George Westinghouse, who also hired Tesla for a short time as a consultant. His work in the formative years of electric power development was involved in a corporate alternating current/direct current “War of Currents” as well as various patent battles. Tesla went on to pursue his ideas of wireless lighting and electricity distribution in his high-voltage, high-frequency power experiments in New York and Colorado Springs and made early (1893) pronouncements on the possibility of wireless communication with his devices. He tried to put these ideas to practical use in his ill-fated attempt at intercontinental wireless transmission, which was his unfinished Wardencllyffe Tower project. In his lab he also conducted a range of experiments with mechanical oscillators/generators, electrical discharge tubes, and early X-ray imaging. He also built a wireless controlled boat, one

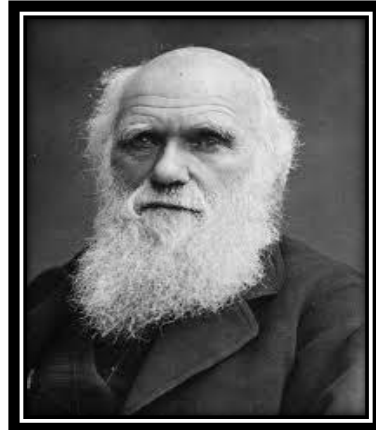
4. Galileo Galilei 1564 – 1642



Galileo Galilei, was an Italian astronomer, physicist, engineer, philosopher, and mathematician who played a major role in the scientific revolution during the Renaissance. He is widely heralded as one of the greatest scientists of all time. His achievements include improvements to the telescope and consequent astronomical observations and support for Copernicanism. Galileo has been called the “father of modern observational astronomy”, the “father of modern physics”, the “father of science”, and “the father of modern science”.

His contributions to observational astronomy include the telescopic confirmation of the phases of Venus, the discovery of the four largest satellites of Jupiter (named the Galilean moons in his honour), and the observation and analysis of sunspots. Galileo also worked in applied science and technology, inventing an improved military compass and other instruments of the first ever exhibited.

5. Charles Darwin 1809 – 1882



Charles Robert Darwin, was an English naturalist and geologist, best known for his contributions to evolutionary theory. He established that all species of life have descended over time from common ancestors, and in a joint publication with Alfred Russel Wallace introduced his scientific theory that this branching pattern of evolution resulted from a process that he called natural selection, in which the struggle for existence has a similar effect to the artificial selection involved in selective breeding.

Darwin published his theory of evolution with compelling evidence in his 1859 book *On the Origin of Species*, overcoming scientific rejection of earlier concepts of transmutation of species. By the 1870s the scientific community and much of the general public had accepted evolution as a fact. However, many favoured competing explanations and it was not until the emergence of the modern evolutionary synthesis from the 1930s to the 1950s that a broad consensus developed in which natural selection was the basic mechanism of evolution. In modified form, Darwin's scientific discovery is the unifying theory of the life sciences, explaining the diversity of life.

6. Marie Curie 1867 – 1934



Marie Skłodowska-Curie was a Polish and naturalized-French physicist and chemist who conducted pioneering research on radioactivity. She was the first woman to win a Nobel Prize, the first person and only woman to win twice, the only person to win twice in multiple sciences, and was part of the Curie family legacy of five Nobel Prizes. She was also the first woman to become a professor at the University of Paris, and in 1995 became the first woman to be entombed on her own merits in the Panthéon in Paris.

Her achievements included a theory of radioactivity (a term that she coined), techniques for isolating radioactive isotopes, and the discovery of two elements, polonium and radium. Under her direction, the world's first studies were conducted into the treatment of neoplasms, using radioactive isotopes. She founded the Curie Institutes in Paris and in Warsaw, which remain major centres of medical research today. During World War I, she established the first military field radiological centres.

7. Stephen Hawking 1942-2018

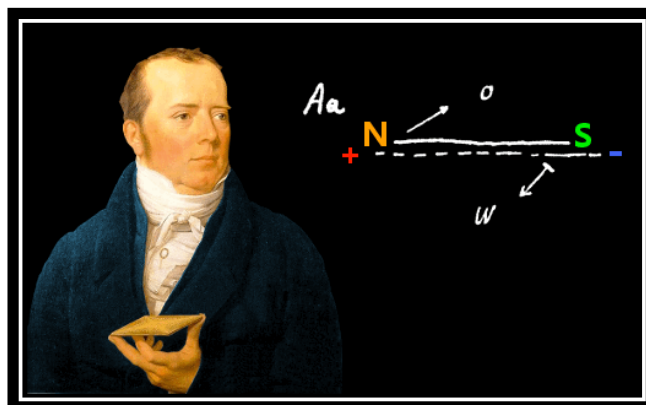


Arguably the world's most famous living scientist, Stephen Hawking is known for his landmark contributions to our understanding of the big bang, black holes, and relativity. He is also renowned for his work as a science populariser, writing the best-selling book “A Brief History of Time”.

The British theoretical physicist and cosmologist, Hawking is acclaimed for his ideas on gravitational singularity theorems in the framework of general relativity, and the theoretical prediction that black holes emit radiation, dubbed “*Hawking radiation*.”

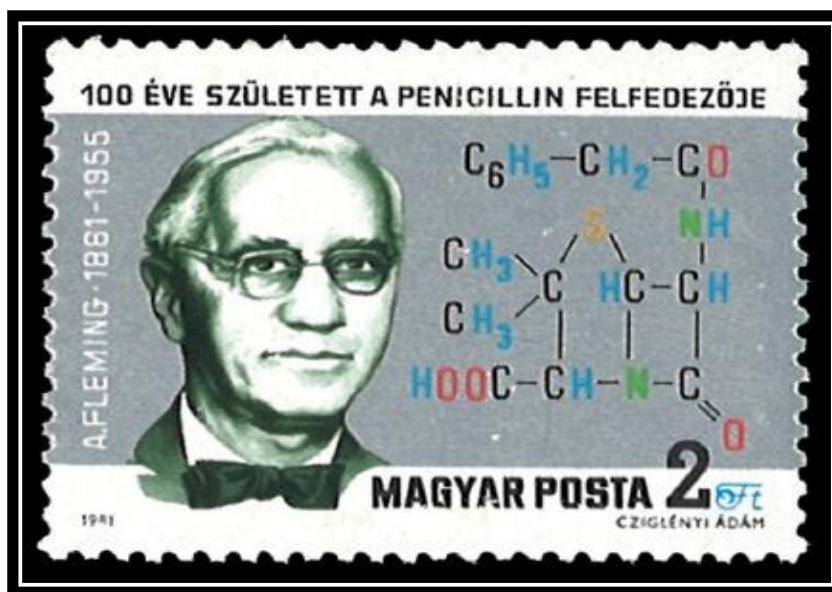
Hawking's remarkable accomplishments are also an inspiration for people living with disabilities as he has suffered paralyzing *amyotrophic lateral sclerosis* (ALS) from early in his life.

8. Hans Christian Oersted 1777 – 1851



Hans Christian Oersted began a new scientific epoch when he discovered that electricity and magnetism are linked. He showed by experiment that an electric current flowing through a wire could move a nearby magnet. The discovery of electromagnetism set the stage for the eventual development of our modern technology-based world. Oersted also discovered the chemical compound piperine and achieved the first isolation of the element aluminium.

9. Alexander Fleming 1881-1955



Alexander Fleming was a Scottish physician-scientist who was recognised for discovering penicillin. The simple discovery and use of the antibiotic agent has saved millions of lives, and earned Fleming – together with Howard Florey and Ernst Chain, who devised methods for the large-scale isolation and production of penicillin – the 1945 Nobel Prize in Physiology/Medicine.

On August 6, 1881, Alexander Fleming was born to Hugh Fleming and Grace Stirling Morton in Lochfield Farm, Scotland. Initially schooled in Scotland, Fleming eventually moved to London with three brothers and a sister, and completed his youth education at the Regent Street Polytechnic. He did not enter medical school immediately after; instead, he worked in a shipping office for four years. When his uncle John died, he willed equal shares of his estate to his siblings, nieces and nephews, and Fleming was able to use his share to pursue a medical education. In 1906, he graduated with distinction from St Mary's Medical School at London University.

10. Alessandro Volta 1745-1827



Alessandro Volta, in full **Conte Alessandro Giuseppe Antonio Anastasio Volta**, (born February 18, 1745, Como, Lombardy [Italy]—died March 5, 1827, Como), Italian physicist whose invention of the electric battery provided the first source of continuous current.

Volta became professor of physics at the Royal School of Como in 1774. In 1775 his interest in electricity led him to improve the electrophorus, a device used to generate static electricity. He discovered and isolated methane gas in 1776. Three years later he was appointed to the chair of physics at the University of Pavia.