

Famous Scientists Who Believed in God

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<http://www.godandscience.org/apologetics/sciencefaith.html>

Is belief in the existence of God irrational? These days, many famous scientists are also strong proponents of atheism. However, in the past, and even today, many scientists believe that God exists and is responsible for what we see in nature. This is a small sampling of scientists who contributed to the development of modern science while believing in God.

Nicholas Copernicus (1473-1543)

Copernicus was the Polish astronomer who put forward the first mathematically based system of planets going around the sun. He attended various European universities, and became a Canon in the Catholic church in 1497. His new system was actually first presented in the Vatican gardens in 1533 before Pope Clement VII who approved, and urged Copernicus to publish it around this time. Copernicus was never under any threat of religious persecution - and was urged to publish both by Catholic Bishop Guise, Cardinal Schonberg, and the Protestant Professor George Rheticus. Copernicus referred sometimes to God in his works, and did not see his system as in conflict with the Bible.

Sir Francis Bacon (1561-1627)

Bacon was a philosopher who is known for establishing the scientific method of inquiry based on experimentation and inductive reasoning. In *De Interpretatione Naturae Prooemium*, Bacon established his goals as being the discovery of truth, service to his country, and service to the church. Although his work was based upon experimentation and reasoning, he rejected atheism as being the result of insufficient depth of philosophy, stating, "It is true, that a little philosophy inclineth man's mind to atheism, but depth in philosophy bringeth men's minds about to religion; for while the mind of man looketh upon second causes scattered, it may sometimes rest in them, and go no further; but when it beholdeth the chain of them confederate, and linked together, it must needs fly to Providence and Deity." (*Of Atheism*)

Johannes Kepler (1571-1630)

Kepler was a brilliant mathematician and astronomer. He did early work on light, and established the laws of planetary motion about the sun. He also came close to reaching the Newtonian concept of universal gravity - well before Newton was born! His introduction of the idea of force in astronomy changed it radically in a modern direction. Kepler was an extremely sincere and pious Lutheran, whose works on astronomy contain writings about how space and the heavenly bodies represent the Trinity. Kepler suffered no persecution for his open avowal of the sun-centered system, and, indeed, was allowed as a Protestant to stay in Catholic Graz as a Professor (1595-1600) when other Protestants had been expelled!

Galileo Galilei (1564-1642)

Galileo is often remembered for his conflict with the Roman Catholic Church. His controversial work on the solar system was published in 1633. It had no proofs of a sun-centered system (Galileo's telescope discoveries did not indicate a moving earth) and his one "proof" based upon the tides was invalid. It ignored the correct elliptical orbits of planets published twenty five years earlier by Kepler. Since his work finished by putting the Pope's favorite argument in the mouth of the simpleton in the dialogue, the Pope (an old friend of Galileo's) was very offended. After the "trial" and being forbidden to teach the sun-centered system, Galileo did his most useful theoretical work, which was on dynamics. Galileo expressly said that the Bible cannot err, and saw his system as an alternate interpretation of the biblical texts.

Rene Descartes (1596-1650)

Descartes was a French mathematician, scientist and philosopher who has been called the father of modern philosophy. His school studies made him dissatisfied with previous philosophy: He had a deep religious faith as a Roman Catholic, which he retained to his dying day, along with a resolute, passionate desire to discover the truth. At the age of 24 he had a dream, and felt the vocational call to seek to bring knowledge together in one system of thought. His system began by asking what could be known if all else were doubted - suggesting the famous "I think therefore I am". Actually, it is often forgotten that the next step for Descartes was to establish the near certainty of the existence of God - for only if God both exists and would not want us to be deceived by our experiences - can we trust our senses and logical thought processes. God is, therefore, central to his whole philosophy. What he really wanted to see was that his philosophy be adopted as standard Roman Catholic teaching. Rene Descartes and Francis Bacon (1561-1626) are generally regarded as the key figures in the development of scientific methodology. Both had systems in which God was important, and both seem more devout than the average for their era.

Blaise Pascal (1623-1662)

Pascal was a French mathematician, physicist, inventor, writer and theologian. In mathematics, he published a treatise on the subject of projective geometry and established the foundation for probability theory. Pascal invented a mechanical calculator, and established the principles of vacuums and the pressure of air. He was raised a Roman Catholic, but in 1654 had a religious vision of God, which turned the direction of his study from science to theology. Pascal began publishing a theological work, *Lettres provinciales*, in 1656. His most influential theological work, the *Pensées* ("Thoughts"), was a defense of Christianity, which was published after his death. The most famous concept from *Pensées* was Pascal's Wager. Pascal's last words were, "May God never abandon me."

Isaac Newton (1642-1727)

In optics, mechanics, and mathematics, Newton was a figure of undisputed genius and innovation. In all his science (including chemistry) he saw mathematics and numbers as central. What is less well known is that he was devoutly religious and saw numbers as involved in understanding God's plan for history from the Bible. He did a considerable work on biblical numerology, and, though aspects of his beliefs were not orthodox, he thought theology was very important. In his system of physics, God was essential to the nature and absoluteness of space. In *Principia* he stated, "The most beautiful system of the sun, planets, and comets, could only proceed from the counsel and dominion of an intelligent and powerful Being." apple falling to the ground

Robert Boyle (1791-1867)

One of the founders and key early members of the Royal Society, Boyle gave his name to "Boyle's Law" for gases, and also wrote an important work on chemistry. *Encyclopedia Britannica* says of him: "By his will he endowed a series of Boyle lectures, or sermons, which still continue, 'for proving the Christian religion against notorious infidels...' As a devout Protestant, Boyle took a special interest in promoting the Christian religion abroad, giving money to translate and publish the New Testament into Irish and Turkish. In 1690 he developed his theological views in *The Christian Virtuoso*, which he wrote to show that the study of nature was a central religious duty." Boyle wrote against atheists in his day (the notion that atheism is a modern invention is a myth), and was clearly much more devoutly Christian than the average in his era.

Michael Faraday (1791-1867)

Michael Faraday was the son of a blacksmith who became one of the greatest scientists of the 19th century. His work on electricity and magnetism not only revolutionized physics, but led to much of our lifestyles today, which depends on them (including computers and telephone lines and, so, web sites). Faraday was a devoutly Christian member of the Sandemanians, which significantly influenced him and strongly affected the way in which he approached and interpreted nature. Originating from Presbyterians, the Sandemanians rejected the idea of state churches, and tried to go back to a New Testament type of Christianity.

Gregor Mendel (1822-1884)

Mendel was the first to lay the mathematical foundations of genetics, in what came to be called "Mendelianism". He began his research in 1856 (three years before Darwin published his *Origin of Species*) in the garden of the Monastery in which he was a monk. Mendel was elected Abbot of his Monastery in 1868. His work remained comparatively unknown until the turn of the century, when a new generation of botanists began finding similar results and "rediscovered" him (though their ideas were not identical to his). An interesting point is that the 1860's was notable for formation of the X-Club, which was dedicated to lessening religious influences and propagating an image of "conflict" between science and religion. One sympathizer was Darwin's cousin Francis Galton, whose scientific interest was in genetics (a proponent of eugenics - selective breeding among humans to "improve" the stock). He was writing how the "priestly mind" was not conducive to science while, at around the same time, an Austrian monk was making the breakthrough in genetics. The rediscovery of the work of Mendel came too late to affect Galton's contribution.

William Thomson Kelvin (1824-1907)

Kelvin was foremost among the small group of British scientists who helped to lay the foundations of modern physics. His work covered many areas of physics, and he was said to have more letters after his name than anyone else in the Commonwealth, since he received numerous honorary degrees from European Universities, which recognized the value of his work. He was a very committed Christian, who was certainly more religious than the average for his era. Interestingly, his fellow physicists George Gabriel Stokes (1819-1903) and James Clerk Maxwell (1831-1879) were also men of deep Christian commitment, in an era when many were nominal, apathetic, or anti-Christian. The *Encyclopedia Britannica* says "Maxwell is regarded by most modern physicists as the scientist of the 19th century who had the greatest influence on 20th century physics; he is ranked with Sir Isaac Newton and Albert Einstein for the fundamental nature of his contributions." Lord Kelvin was an Old Earth creationist, who estimated the Earth's age to be somewhere between 20 million and 100 million years, with an upper limit at 500 million years based on cooling rates (a low estimate due to his lack of knowledge about radiogenic heating).

Max Planck (1858-1947)

Planck made many contributions to physics, but is best known for quantum theory, which revolutionized our understanding of the atomic and sub-atomic worlds. In his 1937 lecture "Religion and Naturwissenschaft," Planck expressed the view that God is everywhere present, and held that "the holiness of the unintelligible Godhead is conveyed by the holiness of symbols." Atheists, he thought, attach too much importance to what are merely symbols. Planck was a churchwarden from 1920 until his death, and believed in an almighty, all-knowing, beneficent God (though not necessarily a personal one). Both science and religion wage a "tireless battle against skepticism and dogmatism, against unbelief and superstition" with the goal "toward God!"

Albert Einstein (1879-1955)

Einstein is probably the best known and most highly revered scientist of the twentieth century, and is associated with major revolutions in our thinking about time, gravity, and the conversion of matter to energy ($E=mc^2$). Although never coming to belief in a personal God, he recognized the impossibility of a non-created universe. The *Encyclopedia Britannica* says of him: "Firmly denying atheism, Einstein expressed a belief in "Spinoza's God who reveals himself in the harmony of what exists." This actually motivated his interest in science, as he once remarked to a young physicist: "I want to know how God created this world, I am not interested in this or that phenomenon, in the spectrum of this or that element. I want to know His thoughts, the rest are details." Einstein's famous epithet on the "uncertainty principle" was "God does not play dice" - and to him this was a real statement about a God in whom he believed. A famous saying of his was "Science without religion is lame, religion without science is blind."

Christians In Science, Technology and Exploration:

George Washington Carver (1864-1943) - scientist, botanist, and inventor

Christopher Columbus (1451-1506) - European explorer who reached Americas in 1492

Kenneth H. Cooper - "father of aerobics"

Jim Irwin (1930-1991) - astronaut, Ark Hunter

James Clerk Maxwell - influential mathematician and physicist

Samuel Morse (1791-1872)

Isaac Newton (1642-1727) - inventor, scientist

Louis Pasteur (1822-1895) - French chemist and microbiologist

Hugh Ross - physicist

Francis Schaeffer - theologian and thinker (1912-1984)

Carol Swain - political scientist

Wright Brothers - invented airplane