Science and Religion Resources

Catholic Scientists of the Past		
Name	Science Connection	
Maria Gaetana Agnesi	Italian mathematician	
St. Albert the Great	Dominican bishop, theologian, philosopher and scientist. Patron saint of scientists.	
André-Marie Ampère	Founder of laws of electromagnetics.	
Amadeo Avogadro	Best known for Avogadro's Law and Avogadro's number, important contributions to chemistry and gas laws.	
Jacques Philippe Marie Binet	Mathematician, physicist and astronomer	
Jean-Baptiste Biot	Physics, magnetics, optics	
Fr. Bernard Bolzano	Mathematician, logician	
Rudjer Boscovic, S.J.	Astronomer, physicist, contributions to atomic theory	
Joseph Boussinesq	Mathematician and physicist, fluid dynamics	
Thomas Bradwardine	Mathematical analysis of motion, predating Newton	
Fr. Henri Breuil	Prehistoric archaeology (especially cave art)	
Bertram N. Brockhouse	Physicist, 1994 Nobel Prize Winner, Neutron spectroscopy	
Fr. Jean Buridan	Contributed to the idea of momentum	
Nicola Cabibbo	Theoretical particle physics	
Giovanni Domenico Cassini	Astronomy (the Cassini probe is named after him), first to accurately measure the size of the Solar System	
Benedetto Castelli, O.S.B.	Student of Galileo, mathematician, hydraulics, fluid dynamics	
Augustin-Louis Cauchy	Regarded one of the greatest and most influential mathematicians in history	
Fr. Bonaventura Cavalieri	Mathematics, geometry specifically	
Michel Eugène Chevreul	Founder of organic chemistry	
Christopher Clavius, S.J.	Astronomer and mathematician, oversaw reform of the Gregorian calendar	
Agnes Mary Clerke	Astronomer, science educator and biographer of scientists.	

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Nicolaus Copernicus	Polish astronomer, Theory of Heliocentrism
Gaspard-Gustave de Coriolis	Discovered and described the Coriolis effect
Clyde Cowan	Discovered neutrinos
Cardinal Nicholas of Cusa	Philosopher of astronomy
Ennio De Giorgi	Mathematician, Calculus of Variations
Pierre de Fermat	Mathematics, analytics geometry, Fermat's principle
Piedad de la Cierva	One of the first female chemists in Spain, Radioactivity, optics.
Charles de la Vallée Poussin	Mathematician, number theory, Prime Number Theorem
Máirín de Valera	Phycology (study of algae). First Professor of Botany in Galway, Ireland.
Thaddäus Derfflinger, O.S.B.	Astronomer, studied sunspots
René Descartes	Important figure of scientific revolution, analytical geometry, Cartesian coordinates (Descartes -> cartesian) considered founder of modern philosophy
Pierre Duhem	Physicist, historian and philosopher of science, thermodynamics
Jean-Baptist Dumas	Chemist, atomic and molecular weights
Gyula Féenyi, S.J.	Astronomer, solar prominences, sunspots
Hippolyte Fizeau	Physicist, first to accurately measure the speed of light
Edith M. Flanigen	Chemist, molecular sieves, holds 109 patents
Emily Fortey	Chemist, research in fractioning of crude oil.
Léon Foucault	Physicist, first to demonstrate the rotation of the Earth, Foucault pendulum
Augustin-Jean Fresnel	Physics,engineer, wave theory of light
Galileo Galilei	Astronomer, first to use telescope to make astronomical observations. Moons of Jupiter, phases of Venus, Law of Falling Bodies
Luigi Galvani	Bioelectricity, anatomist
Dorothy Garrod	Archaeology (paleolithic)
Fr. Pierre Gassendi	Philosophy of matter, first observation of a transit of Mercury, explained parhelia
Victor Grignard	Chemist, 1912 Nobel Prize Winner, synthesis of organic molecules

Name	Science Connection
Francesco Grimaldi, S.J.	Physics, discovered diffraction, gravitational acceleration, mapped surface of moon with Giovanni Battista Riccioli
Euphemia Lofton Haynes	First Black female to earn a Ph.D. in mathematics.
Fr. René-Just Haüy	Geology, "father of modern crystallography"
Charles Hermite	Mathematician, contributions to number theory, elliptic functions, orthogonal polynomials
Karl F. Herzfeld	Physicist, statistical physics, theory of gases, molecular physics. Declined to be involved in developing atomic bomb because of inconsistency with Catholic moral teaching
Victor Hess	Physicist, 1936 Nobel Prize Winner, discovered cosmic rays
Corneille Heymans	Pharmacology, physiology (especially the physiology of breathing)
St. Hildegard of Bingen	Doctor of the Church, physician, mystic, philosopher, musician and more. Wrote extensively about scientific and medicine.
Camille Jordan	Mathematics, engineering, Group Theory
Sir Charles Kuen Kao	Electrical engineer, physicist, 2009 Nobel Prize Winner, "Father of Fiber Optics"
Wilhelm Killing	Mathematician, contributions to algebra and geometry
Stephanie L.Kwolek	Chemist, invented Kevlar
René Lannec	Physician, invented stethoscope
Henry Louis Le Chatlier	Chemist, chemical equilibrium
Xavier Le Pichon	Geophysicist, confirmation of plate tectonics
Urbain Le Verrier	Astronomer, theoretical prediction of existence and position of Neptune
Dr. Jerome Lejeune, Servant of God	Father of Modern Genetics; discovered chromosomal foundation of conditions such as Down Syndrome and Cri-du-chat syndrome.
Fr. Georges Lemaître	Theoretical physicist, mathematician, proposed Big Bang Theory
James Macelwane, S.J.	Geologist, seismology
Marcello Malpighi	Pioneer in microscopy in anatomy and physiology
Agnes McLaren	Physician, Founded St. Catherine's Hospital in Rawalpindi (Pakstian)
Fr. Gregor Mendel	Founded science of genetics
Fr. Marin Mersenne	Organized Academia Parisiensis, one of the first scientific organizations in Europe, researched sound and vibrations

Name	Science Connection
Giovanni Battista Morgagni	Founder of anatomical pathology
Marston Morse	Mathematician, Calculus of Variations, Topology, Morse Theory
Joseph E. Murray	Plastic surgeon, 1990 Nobel Prize Winner, organ and tissue transplants
Fr. José Celestino Mutis	Physician, botanist, mathematician. Botanical therapeutics including quinine.
Servant of God Takashi Nagai	Radiology, heroic survivor of the atomic bombing of Nagasaki
Charles Nicolle	Bacteriologist, discovered cause of typhus, 1928 Nobel Prize Winner
Julius A. Nieuwland, C.S.C.	Chemist, botanist, advances that led to synthetic rubber.
Marcella O'Grady Boveri	First woman to graduate in biology from MIT. Headed the Department of Biology at Vassar. Studied heredity and development.
Bishop Nicole Oresme	Physics, psychology, musicology, mathematics, economics. Precursors to cartesian geometry and the law of falling bodies
Blaise Pascal	"Pascal's Theorem" First calculating machine, probability theory, hydrostatics. "Pascal's Wager"
Fr. Giuseppe Piazzi	Astronomer, discovered first asteroid -Ceres (now dwarf planet). Developed star catalog.
Émile Picard	Mathematician, differential equations, complex analysis, function theory, algebraic surfaces
Vincenzo Riccati, S.J.	Mathematician, physicist, hyperbolic functions.
Gregorio Ricci	Mathematician, tensor calculus
Giovanni Battista Riccioli, S.J.	Astronomer, physicist. gravitational acceleration, mapped surface of moon with Francesco Grimaldi
Édouard Roche	Astronomer and mathematician, theory of origin of Saturn's rings. "Roche Limit"
Clemens Roothaan	Physicist, atomic and molecular wave functions, holocaust survivor
Sr. Hilary Ross	Pharmacist, biochemist, investigated leprosy and developed treatments.
Paul Sabatier	Organic Chemist, Nobel Prize (1912), catalytic chemistry
Giovanni Girolamo Saccheri, S.J.	Mathematician, non-Euclidian geometry
Christoph Scheiner, S.J.	Astronomer, sunspots, first to build telescope with two convex lenses
Theodor Schwann	Physiologist, discoverer that animals are made of cells. Embryology.
Angelo Secchi, S.J.	Astrophysics, spectroscopy of stars. Secchi disk for turbidity of water.

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Ignaz Semmelweis	Physician, antiseptics in maternity wards
Fr. Jean-Baptiste Senderens	Chemist, catalytic chemistry
Fr. Lazzaro Spallanzani	Biologist, logician, disproved spontaneous generation. First to perform in vitro fertilization and artificial insemination in animals.
Josef Stefan	Physicist and mathematician. Stefan-Boltzmann Law
Bl. Bishop Niels Stensen (Nicholas Steno)	Geology, Paleontology, Anatomy and Crystallography "Father of Modern Geology". Laws and principles of stratigraphy, Steno's Law of minerology.
Sir Hugh Stott Taylor	Chemist, catalytic reactions, structure of proteins.
Leonardo Torres	Civil engineers, mathematician, inventor of calculating machines, remote control devices
Evangelisat Torricelli	Mathematician, physicist, invented the barometer. First to correctly explain wind.
Andries van Wesel (Andreas Vesalius)	Anatomist, often called the founder of modern human anatomy
Alessandro Volta	Invented first battery. Measurement of the "volt" named for him. Discovered and isolated methane.
Eva von Bahr-Berhius	Physicist, absorption of infrared rays
Therese von Bayern	Ethnologist, zoologist, biologist. Led two scientific expeditions to South America.
Joseph von Fraunhofer	Astrophysics, star spectroscopy
John von Neumann	Mathematician, pure and applied mathematics, quantum mechanics. Founded game theory.
Erich Wasmann, S.J.	Entomologist, scholar of ants, described 933 new species. Early advocate of evolutionary theory.
Sir Edmund T. Whittaker	Mathematician, physicist, historian of science. Pure and applied mathematics.
Theodor Wilf. S.J.	Physicist, demonstrated that ionizing radiation varies with altitude on the earth.

Sources: Society of Catholic Scientists, Science Meets Faith

Faith and Science Literature			
Book Title	Author	Description	Grades
The Inventions of God (and Eva)	Dave Connis	Little Eva is a budding engineer who loves to invent machines, toys, and robots that bring her joy. But where does her curiosity, creativity, and pizzazz come from? Meet God. He loves to invent, too, and delights in His creations, especially Eva.	PreK-2nd
He's got the whole word in his hands	Kadir Nelson	What began as a spiritual has developed into one of America's best-known songs, and now for the first time it appears as a picture book, masterfully created by award-winning artist Kadir Nelson.	PreK-2nd
The things God made: Explore God's creation through the bible, science, and art	Andy McGuire	Combining Biblical truths and scientific facts, The Things God Made is an inspirational and informative picture book retelling of the creation story from the book of Genesis.	PreK-4th
God speaks in whispers	Mark Batterson	God Speaks in Whispers helps even the youngest readers look for God's voice in the universe: in creation, as he speaks through his followers, and in the Bible as he speaks through his Word.	K-3rd
Even the Sound Waves Obey Him	Nancy Kennedy	This book contains 44 familiar stories of faith taken from the Bible and paired with science activities that are sure to capture attention and get results.	K-3rd
Charles Babbage and the curious computer	Fiona Smith	As they follow the journey of the science club, children will learn about the history of the computer and its inventor, Charles Babbage, and about how science and faith go hand in hand.	2nd-4th
Big Bible Science: Experiment and Explore God's World	Erin Green	Big Bible Science helps children and those who teach them to explore God's World and God's Word through real live science experiments.	K-5th
Science-based Bible lessons	Rose Publishing	This book combines Bible truths with scientific truths God wrote to make sure our world is the best possible place for us to live.	K-5th
The stuff of stars	Marion Bauer	In a poetic text, Marion Dane Bauer takes readers from the trillionth of a second when our universe was born to the singularities that became each one of us, while vivid illustrations by Ekua Holmes capture the void before the Big Bang and the ensuing life that burst across galaxies.	1st-5th
Gregor Mendel: The friar who grew peas	Cheryl Bardoe	Regarded as the world's first geneticist, Gregor Mendel discovered one of the fundamental aspects of genetic science: animals, plants, and people all inherit and pass down traits through the same process.	1st-5th
Everything tells us about God	Katherine Hyde	The world is like a giant puzzle God made that teaches us about Himself. Every piece—earth, sea, and sky, plants, animals, and people—reveals something about who He is and why we're here.	1st-5th

Book Title	Author	Description	Grades
Faith and Science with Dr. Fizzlebop	Brock Eastman	Building on Dr. Fizzlebop's desire to show kids how faith and science connect, each experiment connects to a devotion that allows kids to go deeper and learn about God's amazing design for everything around them. On average, each experiment takes 5 to 10 minutes and the devotional is an additional 5 minutes.	
101 Great big questions about God and science	Lizzie Bryant	Have you ever wondered how the universe began, what the point of life might be, or whether God likes science? Then this is the book for you! 101 Great Big Questions asked by children with fascinating responses from leading experts in the areas of science, theology, philosophy and beyond!	3rd-6th
How great is our God: 100 indescribable devotions about God and science	Louie Giglio	Louie Giglio offers 100 more devotions about God and science that will expand the curiosity of kids. Including amazing scientific facts, beautiful photography, and fun illustrations	2nd-8th
Indescribable: 100 devotions about God and science	Louie Giglio	Indescribable displays the majesty of creation with scientific findings, photography, and original illustrations. These 100 devotions encourage awe at God's creativity with an in-depth look at science concepts.	2nd-8th
Beakers, bubbles, and the Bible	Tina Houser	Join Dr. Fran Bunsenburner, as she takes us into her laboratory (that looks suspiciously like a Sunday school classroom). Once inside, she will demonstrate a variety of scientific experiments that are sometimes strange, sometimes quirky and always fun! Each experiment is tied to a scripture passage and life lesson.	2nd-8th
l love God's green Earth	Michael Carroll	This book of devotions will attract eco-friendly kids and teach them how creation care can actually draw them closer to God.	3rd-8th
Science geek Sam and his secret logbook	Cees Deeker	When a meteorite crashes into Sam's school bike shed, his class has a LOT of questions about space, the universe, and life on earth. But can they believe in God AND the Big Bang? They make some cool discoveries that show them that the answer is a clear yes. A fact-filled and thought-provoking story that will make you chuckle.	3rd-6th
The curious science quest: Modern flights	Julia Golding	Throughout the centuries humans have been looking for answers to BIG questions - how did the universe start? Is there a God behind it? Has science explained away the need for a God, or can faith enhance scientific discovery?	
God's wondrous machine series	Dr. Lainna Callentine	This series features three books: the electrifying nervous system, the breathtaking respiratory system, and the complex circulatory system.	
Brilliant! 25 Catholic Scientists, Mathematicians, and Supersmart People	David Warren	The book introduces children to many of the Catholics behind groundbreaking discoveries in science and math. Children will embark on an adventure through history and meet faith-filled pioneers in every field from anatomy to astrophysics. They II also learn how brilliant they can be when they unite faith and science!	

Additional Resources by Topic		
Topic	Resource Audience	Resource
Big Bang Theory/Origin of the Universe	Students	YouTube Video: What is Creation according to the Church? 3MC
Big Bang Theory/Origin of the Universe	Teachers	Website: Catholic Origins of the Big Bang Theory — Aquinas 101
Big Bang Theory/Origin of the Universe, Astronomy	Teachers	Website: Faith & Science Resource Center - Vatican Observatory
Soul vs. Brain (How and where does conscious thought happen?	Teachers and Students	FORMED Video: Who are you? The Search- Episode 2 FORMED Requires subscription
Soul vs. Brain (How and where does conscious thought happen?	Students	YouTube Video: What is the soul? 3MC
Evolution	Teachers	Website (Faith and Science Section): Thomistic Evolution Faith and Science
Evolution	Teachers	Curriculum: Thomistic Evolution, requires subscription to access. https://openlightmedia.com/courses/authoring-existence/
Evolution	Teachers and Students	Word on Fire Institue YouTube Video Series (2023): Wonder: The Harmony of Faith and Science
Evolution	Students	YouTube Video: <u>Is there a contradiction between creation and evolution? 3MC</u>
Evolution	Teachers	YouTube Video: Evolution, Natural Selection, and God's Causality
Evolution	Teachers	YouTube Video: Evolution and the Creation of Man
Evolution	Teachers	YouTube Video: How do we interpret the Genesis Creation Accounts?
Evolution	Teachers	Book: Austriaco, Nicanor, O.P., ed. <i>Thomistic Evolution: A Catholic Approach to Understanding Evolution in the Light of Faith.</i> Cluny Press, 2016.
Evolution	Teachers	Encyclical: Encyclical of Pope Leo XIII on Scripture and Science
Evolution	Teachers	Book: Horn, Stephan, S.D.S. Creation and Evolution: A Conference with Pope Benedict XVI in Castel Gandolfo. Ignatius, 2009.
Evolution and Pedagogy	Teachers	National Center for Science Education: Teaching Evolution to Students of Faith

Topic	Resource Audience	Resource
Bioethics and the Dignity of the Human Person	Teachers	Website: The Role of the Magisterium in Bioethics
Bioethics and the Dignity of the Human Person	Teachers	Website: Introduction to Dignitas Personae on Certain Bioethical Questions
Bioethics and the Dignity of the Human Person	Teachers	Website: Resources in Catholic Bioethics (full range of topics)
Faith and Science	Teachers	Book: Barbour, Ian. Religion and Science: Historical and Contemporary Issues. Harper One, 1997.
Faith and Science	Teachers	Book: Baglow, Chris. Faith, Science, and Reason - 2nd Edition: Theology on the Cutting Edge. Midwest Theological Forum, 2019. Midwest Theological Forum, 2019.
Faith and Science	Teachers and Students	The Faraday Institute Faraday Kids website. Resources and information about science and faith from an ecumenical standpoint. Many resources tailored for different age groups. https://www.faradaykids.com/
Faith and Science	Teachers	The Thomistic Institute https://aquinas101.thomisticinstitute.org/
Faith and Science, Physics	Teachers	Book: Barr, Stephen. <i>Modern Physics and Ancient Faith</i> . Notre Dame, 2005.
Faith and Science	Teachers	Book: Collins, Francis <i>The Language of God: A Scientist Presents Evidence for Belief.</i> Free Press, 2007.
Faith and Science	Teachers	Book: Consolmagno, Guy, SJ and Christopher Graney. When Science Goes Wrong: The Desire and Search For Truth. Paulist Press, 2023
Faith and Science, Astronomy	Teachers	Book: Consolmagno, Guy, SJ and Paul Mueller, SJ. Would You Baptize an Extraterrestrial? and Other Questions from the Astronomers' In-box at the Vatican Observatory. Image, 2014.
Faith and Science	Teachers and Students	Book: Trasancos, Stacy. Particles of Faith: A Catholic Guide to Navigating Science. Ave Maria Press, 2016. [Available in Student and Teacher editions]
Faith and Science	Teachers	Encyclical: Pope John Paul II Fides et Ratio. Encyclical Letter on the Relationship Between Faith and Reason. https://www.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf_jp-ii_enc_14091998_fides-et-ratio.html
Faith and Science	Teachers	Society of Catholic Scientists
Faith and Science	Teachers	Science in the Bluegrass Archives of the Record

Topic	Resource Audience	Resource
Faith and Science, Pedagogy	Teachers	McGrath Institute for Church Life Science and Religion Initiative
The Galileo Affair	Teachers	Book: Finocchiaro, Maurice A. ed. and trans. <i>The Essential Galileo</i> . Hackett, 2008.
The Galileo Affair	Teachers	Book: Sobel, Dava. Galileo's Daughter: A Historical Memoir of Science, Faith, and Love. Bloomsbury, 2011.
Science Pedagogy	Teachers	Article: Hofer, Barbara and Gail Sinatra. January 20, 2022. So your student believes the earth is flat. Ten ways for teachers to address science denial. Usable Knowledge, Harvard Graduate School of Education. https://www.gse.harvard.edu/news/uk/22/01/so-your-student-believes-earth-flat?fbclid=lwAR0p7-ne190EKTKDVelCbaZPtu15ZWPbv2CldQHKUtpMjZKldO-yVGNGAD4
Science Pedagogy	Teachers	<u>Understanding Science Website</u>
Climate Change and Creation Care	Teachers	Encyclical: Pope Francis. Laudato Si on Care for our Common Home https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html
Climate Change and Creation Care	Teachers	Website: Climate Catholic Covenant https://catholicclimatecovenant.org/ Wholemakers Curriculum: https://catholicclimatecovenant.org/https%3A//catholicclimatecovenant.org/wholemakers-download
Climate Change, Ecology, Creation Care	Teachers	St. Kateri Conservation Center https://www.kateri.org/
Climate Change, Ecology, Creation Care	Teachers	Catholic Ecology https://catholicecology.net/
Climate Change and Creation Care	Teachers	We are all part of God's Plan(et), part of the Laudato Si Action Plan https://godsplanet.us/