

From the Ashes Publishing

Presents:

Seven Science Questions and Why They Matter

***The Ultimate Harmony of
Faith and Science***

***Prepare to be challenged...
Prepare to be changed.***

By:

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www.SevenScienceQuestions.com

Seven Science Questions
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Introduction

"The more I study science the more I believe in God."

-- Dr. Albert Einstein

As implied by the word 'conscience', the word 'science' can be simply defined as 'the state of knowing'. The Webster dictionary defines the word science as:

"Knowledge about or study of the natural world based on facts learned through experiments and observation."

For any thinking person, the word science invokes an expectation of firmly established laws and absolutes that remain consistent in any environment (on dry earth, underwater, in the atmosphere, in space) and at any scale (intergalactic, interplanetary, visible to the eye, microscopic, subatomic) that are proven beyond a reasonable doubt. Since science means 'knowing', it would seem to follow that when we are on solid scientific ground, nearly every scientist should be in agreement on what is 'known'. There should be very little controversy around the bodies of knowledge that are established as scientific fact. Why then is there so little consensus on relevant topics such as macro-evolution, the big bang theory, and climate change? It is apparent that somewhere in between the lines a conflict is brewing that goes way beyond the science itself. Forces are at work to redefine the meaning of 'science' into something far less concrete and clearly defined. Today, theories and ideas are being accepted as fact that may have strong cultural acceptance, but at their core they are lacking the indisputable qualifications that were only a short time ago required before hypotheses were accepted as 'science'.

Indeed, the new flavor of the word science is something far less restrictive. It is now being often used as a blanket of thin credibility for theories which enjoy popularity or political alignment regardless of whether their inferred conclusions violate the established laws of mathematics and physics. The requirement that they pass muster according to the tenants of the scientific method before being labeled as 'fact' has been diminished or eliminated altogether. In addition, the

modern Political Correctness movement carries with it the notion that science must be entirely secular (isolated from faith) and that faith and science cannot mix. Mentioning them together in the same breath is now considered generally offensive or in some way a 'sin against the mind'. But are faith and science as mutually repelling as we have been led to believe?

Seven Science Questions is a fresh examination of the mainstream science topics of today, drawing clear lines between the science and the speculation behind them and presenting fresh information supporting the credibility of a God-centered world view. This book takes a hard look at what is being presented to today's students and the general public in the name of 'science' by means of a straightforward, easy to comprehend walk-through of such contemporary questions as:

- Does faith in God really hinder the advancement of scientific thinking?
- Could life really have spontaneously generated from non-life?
- How much of Darwinian macro-evolution qualifies as real science?
- Is there a connection between evolutionary thinking and racism, abortion, genocide and school violence?
- Can the Big Bang theory really account for the origin of the universe? Does the acceptance of macro-evolutionary ideology carry with it a moral payload that will wreak havoc on our society?
- Will man's overuse of fluorocarbons cause the demise of planet earth?
- How old is the earth really, and why is that an important question? Where did the popular long-age estimate of the earth's origin (4.6 billion years) come from? How much solid science is it based on?
- Did dinosaurs really suffer extinction 65 million years ago? Is there credible evidence pointing to their existence much more recently?
- Did dinosaurs evolve into birds? Why is that idea being promoted by so many scientists today, and why is it an important question?

As each of these topics is explored from a fresh perspective, lines are clearly drawn at the points of departure from solid fundamental science into speculation, philosophy and worldview indoctrination.

Once outside the boundaries of real science, the extrapolations (or extensions) of observable phenomena (e.g., living things change with time, the galaxy is slowly expanding) have evolved into unobservable theories that should never have been accepted as science in the first place. Over the past century and a half, such theories as macro-evolution, the big bang, global warming, etc., have slowly gained acceptance and popularity and today they have become the scientific ‘darlings’ of our time despite their significant flaws, lack of supporting evidence and outright contradictions with the established principles of true science.

Seven Science Questions was written in order to shed new light on these issues. It was written for four primary audiences:

- Those seeking a fresh look at the popular scientific ideas of today. Critical thinking and straightforward logic are applied as the widely accepted assumptions and ‘politically correct’ conclusions are re-examined.
- Those looking for credible scientific evidence that the faith they hold is far better supported by unfiltered science than are the atheistic and secular humanist worldviews.
- Parents and others wanting to prepare students for the ideological crucible they will face in the public education curriculum, which in many cases has been designed to dislodge their faith.
- Those looking for a powerful resource to help friends, family and associates who still think that one must abandon all vestiges of faith in order to retain scientific prowess and intellectual integrity.

Much new information is presented in these pages that will help the reader view today’s science topics from a balanced and unbiased perspective. This book will also introduce fresh thought patterns around information that the reader is already familiar with. Because it

is written for the science layman, the reader need not worry that the concepts or the language will be intimidating or too lofty and advanced. The discussion is presented in straightforward and ordinary language and it will be easy to understand for most adults and students, without having to run to your local 'science nerd' for help. Where necessary the more advanced terms are broken down into ordinary language before they are used. When more difficult scientific language is unavoidable, a simpler wording is included in parenthesis for easier understanding.

While ***Seven Science Questions*** presents information in support of a faith-centered worldview, it steers clear from narrow dogmatism and religious overtones. Some sarcasm is used in order to keep the discussion light but the book maintains respect for opposing ideologies. Its purpose is to venture into new ideological territory and to invite the reader to reconsider the evidence rather than attacking the intelligence or credibility of others.

At first glance it may seem that the ideas presented in this book are too rarely adopted by main stream scientists and can be easily dismissed as too marginal to be seriously considered. The reader will soon discover that the opposite is true. They will be surprised at some of the changes afoot in the scientific community and the increasing rejection of perspectives and ideologies that are not well supported by the evidence. ***Seven Science Questions*** includes a wealth of quotations from the leading science thinkers of today and from the past, and the reader will enjoy discovering how well faith and science have complemented each other throughout history. In addition, more than 85 references are provided in support of the ideas presented. These also provide excellent resources for further study and exploration.

This book will also help the reader evaluate the impact that the critical science questions of the day are having on his own world view and on society as a whole. While early reviewers have found the evidence and information presented in the book fascinating, they have also appreciated the inclusion of the real-world implications of the information presented.

Why Now?

In 1953, James Watson and Francis Crick co-discovered the purpose of DNA's helical structure. Overwhelmed by the advanced intelligence reflected in the coded-information storage and processing capability of the DNA molecule, Crick realized that such a marvelously engineered mechanism could not have arisen by chance. He concluded that such a design would have to have originated from a highly intelligent external source. Since that time, hardly a day passes without a headline appearing that directly or indirectly addresses science-related questions such as "How did life originate on Earth?", "Is there life on other planets?", "Are there credible examples of macro-evolution which break the 'kind barrier'?" and "Will climate change destroy the planet?" All over the world there is a fascination with these questions along with great interest in the work of the contemporary scientists trying to answer them. A small sampling of recent headlines from major news outlets reflects the public obsession with these topics:

"How did life on Earth begin?"

PBS News Hour; September 18, 2014

"Birds Evolved From Dinosaurs Slowly - Then Took Off"

NationalGeographic.com, September 25, 2014

"NASA scientists say we'll find alien life in space in the next 20 years"

Quartz.com; April 08, 2015

"Global Warming Will Destroy The Earth In The End"

Forbes.com, July 19, 2015

"Climate Change Could Wreck the Global Economy"

Time.com, October 22, 2015

Not only are these fundamental questions far from settled, but as the world continues its trend toward destabilization, interest in these questions continues to mount. Meanwhile, public education curricula continue to be more and more dominated by liberalism and atheism. Parents and conservative educators are looking for digestible (laymen-level) science-based books and information to balance the one-sided ideology presented in the classroom, and to help their students understand that unfiltered science actually does support, and even favors a faith-based world view.

Despite the growing need, there are very few resources on the market specifically aimed at providing a high level, factual, and faith strengthening education to students and adults around the relevant contemporary scientific topics which go beyond the creation vs. evolution debate. While there are much more detailed and comprehensive books available addressing the questions of today's science, ***Seven Science Questions*** is unique in the following ways:

- Though deeply researched, it is written at a layman's level, avoiding the deep science lingo, excessive detail and heady and scholarly tone of similar works.
- It is intentionally concise and hard hitting, providing an excellent overview of the topics without becoming a burden for younger readers and busy students to work their way through.
- The "Points to Remember" sections at the end of each chapter boil the information down to a few bullets that will help the reader easily study and retain the pertinent information. In addition, the lists of "Questions for Discussion and Review" found at the end of each chapter will make ***Seven Science Questions*** a very attractive resource for educators and small group leaders.
- The subject matter goes beyond the creation vs. evolution debate, touching on the science issues most talked about in business settings, on the street, and inside the classroom.
- It provides an excellent resource for parents, teachers and others looking for a book specifically written to educate students on the contemporary science issues of the day and strengthen their faith at the same time.

- Though unapologetically faith-based, this book does not include the religious language or belittling overtones that many similar works carry.

Something's Not Right

The story behind ***Seven Science Questions*** began to unfold during my college years. As a mechanical engineering student at Oregon State University, I was introduced to a lot of fascinating science and though I was not a particularly stellar student in the early going, I enjoyed every minute of my education. As we were introduced to proper lab techniques, sound engineering methods and the like, one of the important principles taught was that the presentation of experimental data and hypotheses must always include: 1) any assumptions made when evaluating the data to form conclusions and 2) the statistical margin of error applicable to the final result. My memories are vivid of the day during my sophomore year when my Differential Equations professor introduced the science and mathematics of radioisotope dating to our class. He explained the molecular physics involved and then was careful to go through the assumptions necessary to obtain accurate dates using this method. I remember thinking to myself, "Wow, those are significant assumptions, and there is really little that can be done to confirm them." As my science education continued, I was bothered to see how many of the foundational principles of biology, astronomy and other sciences were built on the conclusions that the earth and the universe are billions of years old (based on radiometric dating ages). I was also disturbed at how seldom the critical assumptions necessary for these ages to hold true were mentioned. I developed a growing awareness that some of the foundational information applied in many of the sciences was not supported by sound scientific methodology. This was the beginning of my intellectual dissatisfaction with the science perspectives being presented in the classroom and the media. This dissatisfaction has continued and deepened through all of my adult life and has turned in to a deep concern for the quality of the information being taught in the classrooms of today and the integrity of the educational experience that my own children will be exposed to.

A World of Intimidation

In today's culture it is vital that...

Every student of faith must be given a strong foundation in credible science that supports their worldview.

Why is that necessary? It's because our increasingly humanistic education system has so often re-crafted the presentation of science into a tool designed to surgically remove all vestiges of faith from the hearts and minds of its students. Whether or not it is intentional, the systems of secular education are indeed effective in converting students from theists to atheists. For starters, the atmosphere in the classroom is very intimidating to most students. Teachers are older, pre-armed with extensive preparation for the discussion, and they often possess one or more post-graduate degrees. The classroom is their domain and by definition they have the floor. By default, their voice takes on an authoritative preeminence. In the typical scenario, they begin teaching science by first laying a ground work of foundational principles and solid, credible facts, slowly building precept upon precept. Then without a sign that anything is amiss, ideas and precepts are exaggerated and over-extended. Theory, speculation and assumption (usually aligning with atheistic and humanistic worldviews) begin to be presented as fact, with no fair disclosure of how shallow the observational data is behind them and most certainly with no fair presentation of the bodies of credible evidence to the contrary which might dispute the party-line predispositions. The long-standing requirement of listing all assumptions and margins of error when presenting conclusions (in order to maintain scientific integrity) has been discarded somewhere along the way. This builds the allusion of fact where fact has not been properly established according to the rules of science. Often, credible research by accomplished scientists in opposition to the commonly accepted view is minimized, ridiculed or excluded altogether from lectures and textbooks so that students are allowed to hear only the 'sound of one hand clapping.' Predisposed and supposedly irrefutable conclusions are set up (e.g., millions and billions of years) in order to exclude opposing evidence and research. Rules are drawn to silence

dissentation and fair discussion. Grades and report cards are often used to pressure students to produce work in alignment with the commonly accepted view while work representing thought in opposition to mainstream ideas is considered inferior. (If you still think that academic freedom is alive in America, I highly recommend viewing Ben Stein's eye-opening documentary, "*Expelled: No Intelligence Allowed*"¹). All thought supporting the "politically correct" worldview is applauded while dissenters are labeled as unintelligent, or holding to "primitive religious superstitions" regardless of which conclusion the raw science supports best.

The Slide from the Solid to the Speculative

The practice of laying a foundation of solid science, then quietly crossing the boundary into unproven and error-riddled theory is according to the pattern of Charles Darwin himself. His solid work in natural selection was based on observable and repeatable evidence, but the extension of it to explain ***The Origin of Species*** is a far cry from scientific. Today, this same crowning of speculative theory as reliable fact has been extended into many other disciplines of science (e.g., Geology, Anthropology, Astronomy, Paleontology etc.). This is why it has become essential that today's youth are trained to recognize that moment when their teachers cross the line from real, solid science into worldview indoctrination. To do so they will have to have the ability to discern the specific points of departure. This will require study and an awareness of the strategies that have been prepared against them to disassemble their faith. They need not be experts in every aspect of science if they are armed ahead of time with the knowledge of the fallacies that are heading their direction. My hope is that this book will give them the tools to stand their ground and clearly communicate to others that real science clearly and overwhelmingly supports a position of faith rather than invalidates it, as Einstein and so many other famous scientists of history have noted (see Chapter 1).

¹ *Expelled: No Intelligence Allowed*; Nathan Frankowski; Rocky Mountain Pictures, 2008; documentary DVD.

Though the origins of this battle have been brewing for quite some time, this was not a critical issue some 50 years ago. The battle lines have certainly moved. If (as our founding fathers stated) “A firm reliance on the protection of Divine Providence”² is to again become a mainstream ideology in our culture, turning the tide and winning the ‘science war’ in the minds of the next generation of American citizens will be a foundational milestone on that path.

While not every mind has a natural affection for science, readers will enjoy learning the information in the following chapters. I also hope to convey a passion for seeing our youth equipped to go on the offensive, using real science and solid historical fact to support a belief in the supernatural and in God, the creator of all things, rather than cower defensively when teachers and professors attempt to embarrass them for believing. With a little effort and some well-focused help, our youth can be transformed from the **influenced** into the **influencers** in middle schools, secondary schools and colleges all across our great nation. After becoming victorious over the corrupt morals and bad science so often presented to them, they will be ready and able to lead their generation and restore our country to new heights of faith, freedom, prosperity, and world leadership.

² The United States Declaration of Independence, 1776.

Question One:

Does Faith in God Really Cause Brain Damage?

Good Science: *Belief in God and adherence to real science are synergistic and complimentary. They have combined to give us some of the best scientists and scientific work throughout history.*

Bad Science: *Belief in a supernatural God destroys scientific thought and progress.*

Science Fiction: *Scientific knowledge leads to atheism.*

One afternoon I was flipping through our local newspaper while eating lunch and the headline of an article caught my eye:

“Looking to Create New High-Tech Jobs? Teach Evolution.”

“What is the link between high-tech job creation and the evolutionary worldview?” you may ask. The author of the article (a college biology professor) tells us how “organized religion” has been a hindrance to scientific progress since the Roman Catholics persecuted Copernicus for his view that the sun rather than the earth was the center of the universe. He went on to explain that if the educational community would increase their commitment to teaching evolution in our classrooms, we would boost scientific advancement in our country, and this would lead to more good paying high-tech jobs.

*“...at a time when states are struggling to attract new industries—we might **demand** that our students learn about and understand evolution.”³*

³ Rissing, Steve; “Looking to Create New Hi-Tech Jobs? Teach Evolution”; *The Columbus Dispatch*; February 6, 2011.

Hmm... let's read between the lines a little and see if we can summarize what this author is telling us. His points seem to be:

- Belief in God (or religion) is responsible for hindering science. Less religion would lead to greater scientific advancement.
- There is a direct link between the loss of technology jobs in the U.S. and the culture's failure to wholeheartedly embrace evolution. Those resisting this movement are to be blamed for a shortage in technology career opportunities.
- Some groups of citizens have a right to **demand** that the students of other groups of citizens (those who do not share their values and opinions) be taught their worldview because (and here they pause to pat their own backs) their thinking is more intelligent and progressive.
- States could more effectively attract technology companies if they demanded that students learn evolution.

Really? Do religion and belief in an almighty God really erode our nation's scientific edge? Let's take a closer look at this idea. Does history offer us any information that might help us answer this question?

More and more often we hear the spokesmen for the atheistic and humanistic worldviews tell our culture that the advancement of scientific thought in America is being hindered by those citizens who still embrace the belief in a supernatural, creator God. You will hear them saying that faith, religion and especially "creation science" are rotting the brains of the students in our schools, destroying our technological edge, and setting the U.S. up for a dismal economic future as the rest of the (atheistic) world forges ahead. They claim that the advancement of our society and our competitive edge in the world market are being held back by "primitive superstitions" such as the belief in a supernatural, all powerful, loving, invisible God.

Do you think I'm exaggerating? Take a look at the below quotation from the host of one of National Public Radio's science education programs:

*“When you have a portion of society that doesn’t believe in that [evolution], it holds everybody back... Really. ... If you try to ignore [evolution] your worldview becomes crazy... untenable... I say to the grown-ups, if you want to deny evolution and live in your world that is completely inconsistent with everything we observe in the universe, that is fine, **but don’t make your kids do it**, because we need them... we need scientifically literate voters and taxpayers for the future... we need engineers that can build stuff, solve problems.”* —Bill Nye, the Science Guy

Let’s see if we can infer Mr. Nye’s pertinent points:

- Anyone who does not embrace the evolutionary worldview holds a crazy (unintelligent) and untenable (indefensible when challenged) position.
- Those rejecting evolution as truth are scientifically illiterate and are incapable of being engineers or solving technical problems.
- Parents should not be allowed to teach their children theistic ideologies (e.g., that the Bible is true and evolution is false) because this will hold us back and harm the future of our society.
- The “real scientists” (evolutionists) among us have a right to dictate what other (dissenting) parents are allowed to teach their children because of their superior intellect.

Ouch! Looks like Mr. Nye’s impression of faith in God is something like *“Remove brain, insert Bible.”*

Science History and Biblical Thinking

But what if Mr. Nye is right? Let’s ask the question “What does history tell us about whether faith in the creator God, destroys scientific thought?” We can start by taking a look at some of those men in history who contributed the most to scientific advancement.

The term “young-earth creationist” describes someone who believes that the earth was created in six twenty-four hour days, approximately

6,000 years ago, according to the biblical account. In the below table, the C/Y/T column on the right indicates the worldview of each scientist listed. (Note that prior to the mid-nineteenth century, nearly all Christians ['C'] held to the young earth viewpoint ['Y'] as the age of the earth was commonly understood to be in accordance with the biblical chronology before that time. To remain conservative, the scientists below have been marked as 'C' unless their allegiance to a young earth position could be explicitly verified.)

Key: C = Christian

Y = Confirmed young-earth creationist

T = Theist

Who?	What?	When?	C/Y/T
Francis Bacon	Inductive reasoning Invented the Scientific Method	1561– 1626	C
Galileo Galilei	Physicist, mathematician, astronomer Developed the Laws of Kinematics (motion of bodies) Along with Copernicus, he showed the sun to be the center of the solar system	1564– 1642	C
Johannes Kepler	Astronomy: laws of planetary motion	1571– 1630	C/Y
René Descartes	Mathematics pioneer Invented the Cartesian coordinate system	1596– 1650	C
Blaise Pascal	Mathematician, physicist, philosopher, child prodigy. Invented the mechanical calculator	1623– 1662	C
Robert Boyle	Physics, chemistry Best known for Boyle's Law (aka: The Ideal Gas Law) Argued that pursuit of science improves glorification of God	1627– 1691	C
Sir Isaac Newton	Newtonian physics, universal gravitation Pioneered the laws of Dynamics, co-invented calculus Examined and confirmed Bishop James Usher's age of the earth based on biblical genealogy	1643– 1727	C/Y
Michael Faraday	Pioneered electromagnetics Invented the A/C electric motor	1791– 1867	C

Who?	What?	When?	C/Y/T
James Prescott Joule	Authored the first law of thermodynamics The Joule, a unit of energy commonly used in engineering calculations, was named after him	1818–1889	C
Louis Pasteur	Leading pioneer in medical microbiology First determined that disease is caused by germs Pioneered the science of immunization	1822–1895	C
William Thomson Kelvin	Helped lay the foundation of modern physics Invented the Kelvin scale, a measure of absolute temperature still used in engineering	1824–1907	C
Max Planck	German theoretical physicist who originated quantum theory, won the 1918 Nobel Prize in Physics Though at the end of his life Planck did not believe in a personal or Christian God, the following quotes reveal his recognition of God's hand in the science of physics: <i>"As a man who has devoted his whole life to the most clear headed science, to the study of matter, I can tell you as a result of my research about atoms this much: There is no matter as such."</i>	1858–1947	T
Max Planck (cont.)	<i>"All matter originates and exists only by virtue of a force which brings the particle of an atom to vibration and holds this most minute solar system of the atom together. We must assume behind this force the existence of a conscious and intelligent mind. This mind is the matrix of all matter."</i> <i>"Both Religion and science require a belief in God. For believers, God is in the beginning, and for physicists He is at the end of all considerations... To the former He is the foundation, to the latter, the crown of the edifice of every generalized worldview."</i>	1858–1947	T
George Washington Carver	Brilliant American inventor Famous for his motto: "Science only by faith in Christ"	1864–1943	C

Who?	What?	When?	C/Y/T
Albert Einstein	<p>Major contributor to advancements in our thinking about time, gravity, and the conversion of matter to energy or 'relativity' ($E=mc^2$)</p> <p><i>"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."</i></p> <p><i>"Science without religion is lame, religion without science is blind."</i></p>	1879–1955	T
Guglielmo Marconi	<p>Italian inventor and physicist Inventor of the radio Awarded the Nobel Prize in Physics with Karl Ferdinand Braun for their development of practical wireless telegraphy</p> <p><i>"I am proud to be a Christian. I believe not only as a Christian, but as a scientist as well. A wireless device can deliver a message through the wilderness. In prayer the human spirit can send invisible waves to eternity, waves that achieve their goal in front of God."</i></p>	1874–1937	C
Dr. Werner Von Braun	<p>A German-American engineer considered to be the greatest rocket scientist of all time. After WWII he was a pioneer in the application of rocket science toward space exploration.</p> <p><i>"One cannot be exposed to the law and order of the universe without concluding that there must be design and purpose behind it all."⁴</i></p>	1912–1977	C

⁴ All quotes from Von Braun except the last in sequence were taken from the Today In Science History website. http://todayinsci.com/B/Braun_Wernher/BraunWernher-Quotations.htm.

Who?	What?	When?	C/Y/T
Dr. Werner Von Braun (cont.)	<p><i>"In this age of space flight, when we use the modern tools of science to advance into new regions of human activity, the Bible ... this grandiose, stirring history of the gradual revelation and unfolding of the moral law ... remains in every way an up-to-date book. ... Science itself does not address the question whether we should use the power at our disposal for good or for evil. The guidelines of what we ought to do are furnished in the moral law of God."</i></p> <p><i>"It is in scientific honesty that I endorse the presentation of alternative theories for the origin of the universe, life and man in the science classroom. It would be an error to overlook the possibility that the universe was planned rather than happening by chance."</i></p> <p><i>"To be forced to believe only one conclusion—that everything in the universe happened by chance—would violate the very objectivity of science itself. Certainly there are those who argue that the universe evolved out of a random process, but what random process could produce the brain of a man or the system of the human eye? Some people say that science has been unable to prove the existence of a Designer... My experiences with science led me to God. They challenge science to prove the existence of God. But, must we really light a candle to see the sun?"⁵</i></p>	1912– 1977	C
Dr. Raymond Damadian	<p>Invented the MRI (1969)</p> <p><i>"I am a young-earth creation scientist and believe that God created the world in six twenty-four hour days just as recorded in the book of Genesis."</i></p>	1936– Present	C/Y

⁵ <http://crev.info/?scientists=wernher-von-braun#sthash.9SNFOWKL.dpuf>.

While there are certainly exceptions, it is inarguable that the great majority of the most accomplished scientists in history were men of faith in God and/or bible-believing Christians.

While today's most popular "science" spokesmen are telling us that faith hinders scientific advancement, history tells us just the opposite. If science is hindered by faith in the supernatural, why is it that so many of the pioneers of science were unashamed believers in God? In addition, many of them also claimed that their faith greatly assisted their work in scientific endeavors. In fact, without the acknowledgement of a great all-knowing God who designed and established an ordered universe, there is no explanation for the existence of universal laws of nature that manifest themselves with flawless consistency across the sciences (e.g., physics, mathematics, chemistry, astronomy). Aside from an ordered mathematical creator, there has never been a credible reason offered that explains why universal physical and mathematical laws and constants should exist at all. If the universe is the result of random processes, why should there be such a pervasive thread of mathematical order running through every aspect of it? Humanists and atheists have yet to offer a satisfactory answer to this fundamental riddle of science.

In addition to the above scientists of history, there are a myriad of other leading PhD-level scientists alive today that are outspoken adherents to the reality of the supernatural and many ascribe to the Christian faith. For instance in his book *In Six Days*⁶, John Ashton PhD has compiled fascinating statements from fifty doctorate level scientists all of whom believe that the earth was created in six literal days, approximately 6,000 years ago. If it is true that "science leads us to atheism" that should not be the case and despite the clamor from the evolution crowd, there is much evidence that the opposite is often true.

Consider the life of Professor Antony Flew, formerly one of the world's most notorious atheists. Of his gradual transition from atheism to deism he says:

⁶ John F Ashton PhD, *In Six Days* (Master Books, Green Forest, Arizona 2000)

*“There were two factors in particular that were decisive. One was my growing empathy with the insight of Einstein and other noted scientists that **there had to be an Intelligence behind the integrated complexity of the physical Universe.** The second was my own insight that the integrated complexity of life itself—which is far more complex than the physical Universe—can only be explained in terms of an Intelligent Source. I believe that **the origin of life and reproduction simply cannot be explained from a biological standpoint** despite numerous efforts to do so. With every passing year, the more that was discovered about the richness and inherent intelligence of life, **the less it seemed likely that a chemical soup could magically generate the genetic code...** “The difference between life and non-life, it became apparent to me, was ontological [metaphysical] and not chemical. The best confirmation of this radical gulf is Richard Dawkins’ comical effort to argue in **The God Delusion** that the origin of life can be attributed to a ‘lucky chance.’ If that’s the best argument you have, then the game is over. No, I did not hear a Voice. **It was the evidence itself that led me to this conclusion.**” – Antony Flew*

It is also interesting to note the hesitation of Darwin himself to accept the serious shortcomings in the evidence for “Big E” evolution (see Chapter 3) and his doubts around the ability of mutation and natural selection to produce the complexity we see in physiology. For example, after studying the wonder of the human eye with its greater than two million interdependent moving parts, he wrote the following:

*“To suppose that the eye with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection, seems, I freely confess, **absurd in the highest degree.**” – Charles Darwin*

Let’s also remember that Darwin’s conception of the cell was by today’s standards archaic. He did not have the powerful electron microscopes that modern nanomicroscopy has made available to scientists today. After examining the structure of the cell using the crude microscopes available to him, Darwin concluded that the cell

was a very simple structure having essentially three basic parts: a membrane, a nucleus, and a nucleolus.

Today we know that the human cell contains the tiniest and most complex information system imaginable. For instance, the storage capacity of DNA of the size that would cover the head of a pin is utterly astounding: equivalent to 100 million 40-gigabyte hard drives!⁷ This storage density is many orders of magnitude greater than the capacities of the most advanced man-made data storage systems, which indeed appear crude in comparison. The cell not only stores vast amounts of coded information, it also copies the information (via RNA), then deploys it to the appropriate local area outside of the nucleus when and where it is needed. The cell then reads and interprets the code to sequentially build the enzymes and proteins required to make possible incredibly complex interactive physiologic systems and capabilities. It is truly a marvel of micro-engineering far beyond the capabilities of any existing technology. To think that this system is the result of chance is as ridiculous as suggesting that the carved faces of Mount Rushmore resulted from random wind and water erosion. It is simply not a rational conclusion. Had Darwin had any understanding of the incredible complexity that exists with each cell of our bodies, chances are that he would never have surmised that they were the result of undirected changes (i.e., chance) over time.

Is Faith Advancing Science?

Finally let's consider this question in a framework of biblical truth. The message of the 66 books of the Bible (written by authors of all walks of life on three different continents over 1,500 years) can be boiled down into the following points:

1. The Creator, God, is alive and well. He is a great, merciful and loving Father.

⁷ Purdom PhD, Georgia; *The Code of Life: DNA, Information, and Mutation*; Creation Library Series, Answers in Genesis; 2007, DVD.

2. It is possible to have a real and intimate love relationship with Him.
3. There is a problem separating men from God. All men are born alienated from the Father's presence and love because He is so powerfully righteous and blameless and we are so unholy (i.e., selfish, immoral, etc.). Like a tissue thrown into a fire, our imperfect and unrighteous nature and His powerful and holy nature are fundamentally incompatible. In our natural state, we would be destroyed by the glory of His raw power if we were to come into His actual presence. In an instant, His holiness would simply consume our un-holiness.
4. God himself provided the solution to this problem when He visited the planet and personally took the severe punishment for our sinful and selfish acts. Having paid the price with His own body and blood, He now offers salvation to us all as a free gift. Those who will simply say "yes" to His gift, no matter who we are or what we have done can be forgiven, reconciled to the Father and have a place in His kingdom.
5. When we accept His gift, we are restored to intimacy with the Father—our life in Him and His life in us—here, today in this life and in the eternal life to come.

If we really can be made one with the Father here in this life, wouldn't it naturally follow that our minds as well as our souls would benefit greatly? Restoration with the Father would settle such important issues as:

- Who is God and what does He want?
- Why I have been born?
- Is there true meaning in life?
- What will happen to me after I die? (The fear of death)
- Will I be condemned in eternity? (The fear of the after-life)

If it is really possible to have peace with God and be right with God, wouldn't that release a man's mind to apply itself to scientific research and endeavor with much greater freedom, insight and capacity? Would not a connection with the God of all creation not only tend to align one's thinking with the scientific secrets of His handiwork, but

also open the possibility that His help can be directly invoked as one attempts to understand His marvelous designs? This is exactly what many of the great men of science have said throughout history... that their faith and their relationship with a supernatural God (or at least their recognition of His existence) has greatly assisted their work in science.

“Everyone who is seriously involved in the pursuit of science becomes convinced that a spirit is manifest in the laws of the universe - a spirit vastly superior to that of man, and one in the face of which we with our modest powers must feel humble.”

—Albert Einstein (1879–1955)

“It was not by accident that the greatest thinkers of all ages were deeply religious souls.” —Max Planck (1858–1947)

“I find it as difficult to understand a scientist who does not acknowledge the presence of a superior rationality behind the existence of the universe as it is to comprehend a theologian who would deny the advances of science.”

—Werner Von Braun (1912–1977)

“This most beautiful system of the sun, planets, and comets, could only proceed from the counsel and dominion of an intelligent and powerful Being.”

—Sir Isaac Newton (1643–1727)

The greatest scientists of history have sent us a consistent message: that the pursuit of science and the evidences of nature reveal a signature of a master designer throughout the created order.

So then, does faith in God and the recognition of His presence and marvelous handiwork hinder scientific progress? Based on the evidence passed down to us throughout history, the most reasonable and intelligent conclusion is that the exact opposite is true.

Points to Remember

1. Among the greatest contributors to scientific knowledge throughout history, most of them were men of faith who held Christian or theist worldviews.
2. A significant number of the leading scientists of history acknowledge that their belief in a Creator assisted or greatly helped them in their scientific endeavors.
3. Aside from the existence of a Creator having vast intelligence, there has been no credible explanation offered by atheists for the existence of the physical laws, universal constants and mathematical order we see throughout the universe.
4. Though some dare not admit it for fear of losing their careers and livelihoods, many of today's leading scientists are Christians or theists.

Questions for Discussion and Review

1. In your opinion, does the significant number of Christians and theists among the leading scientists of history support or contradict the idea that faith in God hinders scientific advancement?
2. Why would Darwin and his colleagues have underestimated the complexity of the cell? Would a much simpler understanding of the cell be more consistent with evolutionary ideas, or less consistent? Explain your reasons why or why not.
3. Many journalists and scientists in recent years have lost their tenure, their jobs and their entire careers for being associated with or even mentioning intelligent design, or creationism in their work. In your opinion, does this mean that we still enjoy academic freedom and free speech in our country?
4. Should students be allowed to question evolutionary and atheistic thinking in the classroom? Should their academic performance (e.g., grades, etc.) be affected when their worldview is not in agreement with that of their teacher, professor or instructor? Why or why not?

5. Do you think that belief in God helps or hinders scientific thought and research? Give reasons why or why not.

Question Two:

Life from Non-life -- Science or Fiction?

Good Science: *Based on scientific evidence and history alone, no one can know how life began.*

Bad Science: *Modern science has provided a satisfying naturalistic explanation of how life began.*

Science Fiction: *Life originated by a random combination of elements.*

How did life on Earth begin? The most popular theory usually taught in our schools is that life began when the basic elements necessary (carbon, hydrogen, oxygen, nitrogen, and iron) happened to be in the right place in the right time in the right quantities in a mud-like mixture known as the “primordial soup.” Then an external source of energy (e.g., lighting) energized the mixture so that the elements happened to combine in just the right sequences to form the basic enzymes and proteins—and poof! The inorganic was transformed into the organic. Once this little life form started wiggling, the forces of mutation and natural selection took over until billions of years later, man evolved and created the space shuttle... and the rest is history.

While at first glance this idea may seem tenable, it is plagued by many insurmountable issues from a scientific point of view.

Problem #1: Life is way too complex

Mathematicians consider that anything with a probability less than 1 in 10^{50} is “statistically impossible.” This means that although it is not technically impossible, the probability is low enough so as to not bear mention in a rational, reasonable argument. Considering that the minimal cell needed for the simplest life form requires 239 protein molecules each with properly sequenced amino acids, the probability of only the first protein occurring via random combination of molecules has been calculated at 1 in 10^{161} . Because the proteins required for life function must be in matched sets in order to work properly, the second protein (that must be obtained randomly under this model of origins) is many times more difficult to come by. The probability of the second protein randomly occurring has been calculated to be 238 in 10^{520} . The third one could be any of the 237 still needed, so its probability would be 237 in 10^{520} and so on until all 239 needed proteins have been attained. By combining the probabilities for each protein occurring randomly, the final probability of arriving at the simplest life form becomes one in 10^{119850} (see footnote ⁸). Now since the average person requires about four inches to write out 20 zeros, it would take over a third of a mile to write the zeros behind this number by hand! No rational scientist would maintain that something this improbable could occur, but even if it did occur, the problem is far from over.

Problem #2: Life requires interdependent systems

Even if the above stated sequencing did somehow happen by chance, there is no reasonable possibility that the living molecule would magically have the ability to self-replicate which is of course, essential for sustainable life. But even if a living, self-replicating cell did

⁸ Coppedge, Dr. James F.; *Evolution: Possible or Impossible*, Zondervan, 1973; pp. 110–111.

miraculously emerge, a self-copying molecule is in itself not nearly enough. Once we have a simple life form in place, we face a far more complex problem—the sustaining of life. If this problem is not addressed in the initial life form, it will simply die, and we are right back to an entirely inorganic world. The following is a minimum set of bio-systems that must be built into our initial life form in order for life to be sustained:

1. Metabolic: The ability to consume food and convert it internally into the heat, sugars and nutrients needed by the organism.
2. Locomotive: The first inorganic organism must be able to move about to find sources of food.
3. Circulatory and Pulmonary: There must be a mechanism in place in order to convert oxygen into a useful form, and distribute oxygen and essential nutrients throughout the organism.
4. Reproduction: The organism must have the ability to multiply and foster future generations.

In addition, more complex mechanisms such as nervous and skeletal systems must eventually come into existence (by chance) and the more complex the organism, the more interdependent these systems are. For instance, lungs will not work for long without a rib cage to protect them and a brain and nervous system to regulate them. The boundaries between these systems are easily defined, but they are intricately interdependent. This could never have occurred by chance. So we now need to further reduce the probability of life by random processes (as described in Problem #1 above) many times over because the first random life forms must somehow have had complex systems already in place in order for the randomly formed life to be sustainable. This idea – that the systems of life require the systems of life – is referred to as “irreducible complexity” because each cannot exist without many other fully functioning interdependent and complimentary counterparts.

Problem #3: Complex information systems are never the result of chance

A huge additional problem stacks the odds against random origins of life even further. With the discovery of DNA in the 1950s, we now understand that all cells have DNA in their nuclei. DNA contains the coded information needed to produce all of the proteins required by the cell in order for it to perform its overall function. Simply put, DNA is the code of life. Within each cell is a fantastically complex coded information system, far more sophisticated than any designed and built by mankind. The cell includes an information copying system (RNA), an information interpretation system (ribosomes) and actors that translate the information into the specific proteins needed at the right time and at the right place. Without exception, all information systems have intelligent designers and the systems themselves are always less intelligent than their creators. In addition, no information system of any kind has ever been known to result from chance processes.

In order to illustrate this, consider the following riddle:

You are given a Lear jet, an unlimited number of rolls of paper (the large rolls from which newspapers are printed) and an unlimited number of five-gallon cans of black ink. Your assignment is to fly the Learjet overhead and throw the paper rolls and ink out the door together at the same time. You can do this as many times as necessary in order to produce the desired result. The statistical problem you must solve is this: How many times will you need to repeat this experiment in order to produce—by the chance interaction of the paper and ink—a readable newspaper (without spelling errors) out in the fields where the paper and ink come crashing down?

Never going to happen? Seem too difficult? Ok, let's make it easier: this time you only need to produce a single readable sentence in the

English language with no spelling errors. Now how many times will you need to throw the ink and paper out of the jet to achieve the goal?

You see, the English language is a encoded system similar to that recorded in the double helix structure of DNA. It is made up of various combinations of the letters of the alphabet in recognized sequences or "words." The combinations must be in correct patterns (e.g., the words must be spelled correctly and form cohesive sentences) in order to carry useful meaning or information.

Our riddle illustrates a simple truth: **A code-based information system can never be the result of a random process.** Yet this is exactly what one must believe if he accepts that something as complex as a cell (complete with code-based DNA), could ever be produced from random interactions of chemicals.

*"If DNA required intelligent preprogramming, the signs should be unmistakable. The mark of intelligence is not exactly hard to discern. We speak of the genetic code, DNA transcribed into RNA, RNA translated into protein. These are language terms. They are used not just because they are convenient, but because they accurately describe what is going on in the cell. There is a transfer of information... DNA is an informational code, so the connection is readily apparent. **The overwhelming conclusion is that information does not and cannot arise spontaneously by mechanistic processes.** Intelligence appears to be a necessity in the origin of any informational code, including the genetic code, no matter how much time is given."*⁹

⁹ Lester, L. and Bohlin, R.; *The Natural Limits to Biological Change*; Probe Books, 1989; p. 157.