

# Elements Found in the Bible

By Derek Marshall

lead 82 <b>Pb</b> 207.2	gold 79 <b>Au</b> 196.97	silver 47 <b>Ag</b> 107.87
copper 29 <b>Cu</b> 63.546	zinc 30 <b>Zn</b> 65.39	iron 26 <b>Fe</b> 55.845
aluminium 13 <b>Al</b> 26.982	silicon 14 <b>Si</b> 28.086	tin 50 <b>Sn</b> 118.71

Did you know that there are several elements listed by name in the Bible? In fact, there was sufficient knowledge of these substances that they were referred to by name, even though much of the Old Testament of the Bible was written by 400 BCE. This was at the same time that the Ancient Greek's "Earth, Air, Fire, Water" theory was gaining popularity. So even back in Biblical times, there was a false "science" that a person could believe, even though the Bible already was suggesting that pure materials were the building blocks of the World. And as we will learn later, in the book of Daniel, written around the 3<sup>rd</sup> or early 2<sup>nd</sup> century BC, the bible had already given a rather obvious periodic arrangement of the following known elements and substances, including Gold, Silver, Brass, Iron, and Clay. Also, every element has special attributes and personalities. Elements which are lined up along the various series in the Periodic Table of the Elements are similar in character. The Bible uses simile and metaphor when describing the patriarchs and animals, often comparing these to the elements. Even though I offer some basic technical information of each, I have taken a personal approach to these lessons, and relate my person experiences and inspirations from each of the Biblical elements. Let us examine some of these elements and their significances.

## Gold

gold 79 <b>Au</b> 196.97
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Gold is a dense, soft, bright, reddish-yellow metal with a beautiful luster. It is as useful as it is attractive. It is a superior conductor of electricity and coupled with its resistance to corrosion, it is often used in electrical connectors. As a malleable and ductile material, it can be hammered into thin sheets or drawn into wire nearly one atom thick. It can be polished to a mirror-like finish and it is also used for shielding of sensitive electronic components on satellites. Gold is classified according to the "Karat" system with 24 Karat gold being 99.99% pure. The most common jewelry is 14,

18 karats, which is 58, 75% pure, respectively mixed with cheaper metals to increase hardness for durability and value. To determine purity, simply divide karat count by 24.

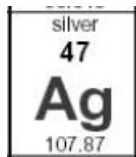
“Gold” or “golden” is mentioned in the Bible over 400 times, and has profound spiritual significance. One common significance of gold is to show kingship or deity. An example of this is the ancient Babylonian King Nebuchadnezzar who, inspired by a dream, built a statue with the head made of gold. An interesting contrast is how transparent gold is used in Heaven to pave the streets. We dedicate an entire chapter to this image of King Nebuchadnezzar in the “Daniel Periodic Tables” chapter.

When I was in the USMC in the 1980’s I became fascinated with gold. I was aware that it was relatively cheap in those days and also understood that its value could shoot up drastically over a short period of time. So, one day when our ship docked in Hawaii, I was handed a blue leaflet advertising 24-carat gold-dipped leaves for 99 cents each. I could not resist seeing what these were and went upstairs to this musty little shop in Oahu and bought a bunch of them, thinking that I had just made a huge score. Sometime later, I tore open one of the leaves to discover that it was a dry leaf covered mostly some soft, cheap metal, probably tin, just thinly plated in gold. I still have these leaves (and leaflet) and they are very shiny and brilliant, but not solid gold as I had hoped originally.

With my disappointing gold experience, I have noticed a pattern in how satanic influences employ gold in the Bible. There are some examples in the Bible of how Satan may give you gold, but he always takes it back. The Children of Israel depart Egypt with a “High Hand” having been gifted with much of the country’s jewelry and precious metals, including gold. This gold was ultimately used to build the tabernacle and the Ark of the Covenant. But we know that this gold taken back during the Babylonian captivity in the 6<sup>th</sup> century BCE. King Solomon had a yearly income of 666 talents of gold during the time he was multiplying his wealth but after his death, this went back to Shishak, King of Egypt.

God considers gold a holy material. Materials are considered holy because they can be purified by passing through fire. The Lord says everything will be tried by fire to determine its purity.

### Silver



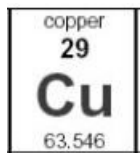
Silver is a dense, soft, bright colorless material with a metallic luster that can be polished to a mirror finish. It is the most electrically conductive material, superior even to copper and gold. It is commonly used for jewelry, because it is easy to work and is a relatively inexpensive precious metal. The average silver gold price ratio is typically about 1:60, and remains a leading indicator of when silver is undervalued. Unlike gold, silver tarnishes easily and requires frequent polishing. Silver is known to have antibacterial properties which also enhance its usefulness as jewelry and eating utensils.

The first mention of silver in the Bible was Genesis 13:2 to describe the riches of Abram. Silver was also used in the Tabernacle in the form of sockets and hooks. The sockets were the bases for the gold-plated acacia wood pillars that formed the perimeter of the Holy Place. The hooks held up the curtains that covered the outer boundary of the tabernacle.

Maybe the most familiar appearance of this precious metal in the Bible is the account of how Christ was betrayed by Judas Iscariot and handed over to the Gentiles for crucifixion. It is well known that Judas was paid 30 pieces of silver for his share in the capture of Jesus. But what people forget is that this money was ultimately used to buy a plot of land called the “Potter’s Field”. This plot became the place where strangers were buried and has been called the “Field of Blood” ever since. With this, it would seem that in general Earthly terms, even the dirt on which the Blood of Christ fell was paid for when this plot of ground was bought with His ransom money. We will see in this text many examples of the number 30 referring to Earth and I believe that this purchase of land was symbolic and necessary to be a temporary holding place for Christians in the Earth when we die. Otherwise, without this payment for the body of Christ from the chief priests and elders, we would be occupying Earth that is not rightfully ours which would be sin. Silver means redemption and ransom paid in the Bible.

When I was a child, my mother and father had stashed away for me a collection of silver coins. I had rolls of Wartime Jefferson nickels, Morgan Dollars, Roosevelt dimes and Washington quarters 1964 and earlier. They referred to this as my “Treasure”. When I was old enough, I would request to see the Treasure. My father would disappear down into the basement and emerge with an old coffee creamer jar wrapped in a thick paper bag tied with an old bootlace. He would hand it to me and I could feel the weight and density of it. As I would go through the process of opening the package, I could smell the age of the old paper bag wrapping. Once I opened the jar, I would dump it out and it was more money than I had ever seen. I felt rich as I would greedily shove my hands into the pile of old money and smell the silver on my hands. I still have the most valuable specimens of that same treasure, and the bulk silver coins of repetitive dates were sold for college expenses. I have since added to it coins from all over the world, as my military experience and college degree have afforded me the ability to travel.

## Copper



Copper is a soft, ductile metal with a pinkish-orange color. Besides its well-known use as an electrical conductor, it is an excellent heat-transfer medium and is often found in cookware. Like silver, it has anti-bacterial properties and is now being used in airports for water bottle refilling stations. Copper can be polished to a mirror-like finish and is used in ornamentation as a shiny metal or can be used for its beautiful green patina when it oxidizes. Like gold and silver, copper is a “native metal” and can be found in the crust of the Earth in its pure form. Its use in pure elemental form dates back to antiquity in the Middle East because it was hard enough to use as a tool, but soft enough to shape and mold.

We find the word “copper” one time in the KJV version of the Bible, but it is from the same Hebrew word used for brass everywhere else in the Old Testament. Copper readily forms metallic mixtures, or alloys, with tin and zinc to form bronze and brass, respectively. The “widows’ mite” was made of Copper and when that old woman humbly presented her 2 mites at the temple Christ marveled at her generosity, because “she gave all she had.” Although copper was easier to use for some ancient coinage, we will read next how brass and bronze had some other desirable qualities that would have been more equitable for various applications in Biblical times.

I lived in the Upper Peninsula of Michigan for several years in my 30’s. It was then I made the decision to go back to school to get my Physics degree. I applied to go to Michigan Tech and was accepted. Michigan Technological University was founded in 1885 and was originally named the Michigan Mining School. The school is situated along the Portage Canal directly across from the Quincy Mine, one of the very productive copper mines in operation during the late 19<sup>th</sup> and early 20<sup>th</sup> century. The influence of the copper industry is seen and felt all over the region, known as the “Copper Country”. I went on the Quincy Mine tour with my Dad and Step-Mother and once deep in the mine, a ¼ mile below the surface, I felt the pure desperation of Man digging for this valuable mineral. At night, I would sit on the balcony of my apartment building in Houghton, MI and look at the hill on which the mine sits and imagine being deep in the cold blackness of the abandoned mine, knowing if I went down there, I would never be found. Then I would remind myself that God is even there and it is impossible for a Christian to leave His Presence.

### Brass

copper 29 <b>Cu</b> 63.546	zinc 30 <b>Zn</b> 65.39
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Although modern Brass is an alloy of primarily two elements copper and zinc, the “brass” referred to in the Bible would be better referred to as “copper alloy”. It resembles gold when polished, but brass has a hint of green in its luster, instead of red. It is a self-protecting metal and develops a tarnish that helps keep it from deteriorating.

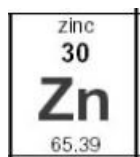
Brass is a military metal, used for armor, decoration and bullet cartridges. As a U.S. Marine, I would proudly display my meticulously maintained and polished brass M-buckle, as it is a part of recruit training to break down new buckles with emery cloth, rouge and a lot of rubbing for a flawless mirror finish. We would keep our “brass” in a plastic soap dish, wrapped in cotton and “Dura-Glit” polish and carry it in our pocket. Whenever we were idle in the course of our training schedule, the Drill Instructor would tell us to “break out our brass” and we would polish our new buckles in anticipation of graduation day.

In machinery, brass is commonly used for bushings because it has low coefficient of friction with steel parts. Bushings are sized according to the radius of the bore, or hole, for which they are to be set inside. Many hardware stores sell brass tubing and steel tubing that can be used to make a set of bushings and axles to build a small wooden model truck. Sized properly, a steel part inserted into a brass bushing will spin astonishingly well.

Under “Silver” we began to discuss the number “30” in the Bible: Since brass has a thirty component, when something in the Bible mentions brass, we look for a consistency across the scriptures to develop a potential spiritual meaning. Throughout this book, we will see the number 30 as a reoccurring theme.

In the Book of Micah, it says “Arise and thresh, O daughter of Zion: for I will make thine horn iron and thy hoofs brass...” This is a what I refer to as a “Rosetta Stone” prophecy because it is a convergence of several vitally important ideas we will discuss in this book. Iron, 26 and Brass 29,30 is mentioned together in the Word many places. The purpose of this book is to give one more dimension of information in the form of “root” and “scope” numbers from the Creation Function. In this case, we have the numbers 26, 29, 30 for use in cross-referencing these ideas with those in other places in the Bible and in ancient near-Eastern artifacts. The Periodic Tables you will see feature these numerical markers in the same places, and they will be explained; further validating the idea that the authors of the Bible were indeed, inspired by God.

### Zinc



Although zinc is not mentioned by name in the Bible, it alloys rather easily with many other metals. Among the older archeological discoveries of copper alloys with zinc are found in Israel. Zinc is an interesting material because it seems to be more useful as a helper to other materials or systems, not seeking fame for itself, staying behind the scenes. By itself, it is brittle metal which tarnishes easily. With the process of galvanization, zinc can be applied via electric charge to “cover” items made of iron or steel to protect and help prevent corrosion. This is very similar to the cleansing action of the Blood of Jesus Christ which covers our sin and “cleanses us of all unrighteousness”.

As an essential mineral, zinc promotes the human body’s defense system; many believe that zinc can help shorten the duration of a cold. But we see that one of the most important functions of Zinc in humans is the development of the fetus while in the womb. When a human egg is fertilized, using modern scientific instrumentation, we observe a “zinc explosion” signifying the moment of conception. This is a glorious message from God that zinc has the proud distinction of conveying. It is the announcement of Life.

A zinc atom contains 30 protons. It is positioned in the 4<sup>th</sup> Period of the Periodic Table of the elements at the end of the 3d orbital. Besides carrying the significance of the number “30”, it holds a special position in the 7-day Creation which will be covered in the Creation Function section. Also, we see that the elemental abundances of naturally occurring materials found on Earth dramatically drops off after Z-number 30, zinc. This will have more impact in the Creation Function section of this book. For now, Zinc is somewhat misplaced, almost hidden from view. Christ said that the “meek shall inherit the Earth” and we see that humble Zinc is an example of this.

I was a shy kid at Evergreen Baptist Church, Kalkaska, MI, which is also where I attended high school under the ACE curriculum. It wasn't until Pastor Ron Jackson "volunteered" me to have the lead in the yearly school play which forced me to deal with being "out-front". Later, Pastor Theron Stewart "volunteered" me to organize a way to increase ridership on the Bus Ministry for which I was also "volunteered" when the senior girl Kathy Wilkie who ran it graduated. These experiences and successes prepared me for the U.S. Marines where I achieved the rank of sergeant and ran a communication electronics repair facility. I am not a big, strong, forceful guy. All the leadership that I have I had to learn "on the job" in the Marines and later in life. It is ok to be shy and meek like zinc. But alloyed with Christ we can be strong and shine like the finest brass.

### Bronze

copper 29 <b>Cu</b> 63.546	tin 50 <b>Sn</b> 118.71
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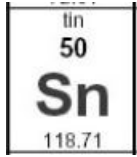
Although modern bronze is an alloy of primarily copper and tin, the "bronze" referred to in the Bible would be better referred to as "copper alloy" as stated earlier. Most of the instances of "Brass" in the KJV version of the Bible would be better read as bronze. Bronze was needed for things that needed more strength than beauty.

Christ said of his future crucifixion that "as Moses lifted up the serpent in the wilderness, so must the Son of Man be lifted up." By simply looking upon this metal serpent the Israelites could be spared from dying from their snake bites; a judgement for idol worship.

A popular application of bronze is the medal. In the Olympics, athletes that achieve 3<sup>rd</sup> place in an event receive the bronze medal. In the military, most of the medals are bronze. The first medal I earned was the American Legion School Award when I was 11 years old. Two boys and two girls from my 6<sup>th</sup> grade class were selected among the students voted by the students themselves. I was shocked to receive any votes let alone the number that I received. I attribute my earning of the medal to my cohort, Scott Wright who was my best buddy and a good influence in my young life. He was a straight-A student as well as being good at everything else as well. I wanted to be like Scott, so I began to sit next to him in school. In 6<sup>th</sup> grade, I imitated him.

Horrible at cursive writing, I changed my penmanship to be like his beautiful flowing script. I adopted his running style when we would play tag or football, because he could always avoid being tagged or tackled. My grades went from B's and C's in 5<sup>th</sup> grade to straight A's like Scott in the 6<sup>th</sup>. I was soft, weak and kind of dull before meeting Scott. In the space of one school year, I had become brilliant and popular enough to be recognized by my peers. So, take heart if you are more like tin, like I was, you can pair up with someone like Scott and become tough, bright and useful like bronze. I went on to earn the Good Conduct Medal during my honorable peacetime service in the USMC. More about the attributes of tin in the next section!

## Tin



Elemental Tin is not typically found in the crust of the Earth. It is primarily found in its oxide and sulfide forms. It is abundant, but not as much as one would think. Most of the tin we use comes from China. As a metal, Tin is mentioned by name in the Bible as something to be purified by fire, and something that is traded by merchants. Anecdotally, if you take copper with 29 protons and add tin with 50 protons, you get the 79 protons of gold, which is the head of the King Nebuchadnezzar in the Daniel Periodic table. Unfortunately, the alloying of these two doesn't make gold, only good 'ole bronze! I mention this as an aside because many biblical references to Christ mention bronze, and Christ is our King.

As mentioned, Tin has 50 protons in its nucleus. In nuclear physics, it has been determined that certain numbers of nucleons promote stability. These special quantities are commonly referred to as "magic numbers". The set of magic numbers: {2, 8, 20, 28, 50, 82, 126}. Tin has 10 stable isotopes, more than any other element. The "Noah's Ark" periodic table demonstrates magic numbers in action later in this book.

Tin can be viewed as a "disruptor" material. Disruptors are people or inventions that challenge the status quo and move society forward by making things better. Tin does this with copper when it forms bronze. Copper has a crystalline structure that causes it to be soft, too soft to use as a weapon or armor. Adding tin to the structure disrupts the structure of copper just enough to make it harder, but not so hard to render it brittle. It accomplishes this by adding small dislocations to the crystal lattice, making it harder for the lattice to deform or move. "Toughness" is defined as resistance to deformation. Bronze is tougher than copper and makes it useful for more applications. Tin-plated steel also disrupted society when it began to be used as long-term container for food aka "tin cans". Previously, food was "canned" in glass which is brittle and subject to breakage. Canning was no longer necessary when long-term stable foods became available in tin-plated containers. However, many still do practice canning because it is a valuable skill and promotes self-sufficiency and the satisfaction it brings.

My job in the Marine Corps was Ground Radio Repairer. In 1983, this was among the best MOS training schools available for new recruits and you needed to have a high-test score to get in. One of the classes we had to take was soldering. Finishing this class meant you could solder at the MIL-SPEC level to repair military communication equipment. The class was hard and you could not pass unless you followed instructions exactly. Solder is a tin alloy with lead. At the precise proportion, the alloy will exist in a eutectic phase, meaning its melting point is lower than either of that of its constituent phases. This is how solder works. With a melting point of 183° C, to solder you need a hot iron with a clean tip. Also, you need a flux compound to transfer the heat from the iron to the workpiece. Most solder you buy will have a "flux core". To begin the process, the tip of your iron must have a dab of fresh solder. The workpiece must first be "tinned", meaning it must be coated in solder. If the

work isn't pre-tinned, you must do the tinning. You must be patient but do not overheat the workpiece while tinning. Once the workpiece is tinned, meaning it has a silvery solder finish, you can start soldering. Have a piece of solder at the ready in your other hand. "Shock" the iron tip with a wet sponge. Get another dab of solder on the tip. Touch the dab to the work piece. Once the dab melds smoothly to the work piece, bring in your solder to the to the joint, and fill in the amount of solder you need at make a smooth and mirror-like "fillet" with no cracks or haziness. Remove the tip and solder simultaneously and quickly. This short explanation should get anyone through a small project requiring soldering. If you skip any one of these minimal steps, you probably will not make a good solder joint. The most common problem is an iron that is not hot enough and/or too small for the job.

I have noticed that everything that is done requires information and effort. Soldering (and rifle range) taught me this principle. And most times, the lack of information is the problem if you are trying to do something for the first time. If you try something, and it doesn't work, do not give up. Everyone that you admire who "does stuff" experiences this almost every day. Use your effort to find the missing information. Today if I hit a roadblock, I do an internet search for the problem. I find an answer virtually 100% of the time. But when I don't, I use the "guess and check method" until I solve the problem.

### Iron

iron
26
Fe
55.845

If viewed from a global perspective including the Earth's core, iron is by far the most abundant material. However, it's only 4<sup>th</sup> in relative abundance if one samples the Earth's crust only. Iron is rarely found in its pure elemental form because those specimens are mostly extra-terrestrial, falling to the Earth from space. Iron does have a pleasant silver-grey mirror-like finish, but as we know it oxidizes quickly in air forming rust. What is so special about iron? It is useful for just about everything. Iron is a tough material. Unfortunately, iron is also somewhat heavy for its size. Otherwise, we would build everything from iron, or steel. Steel is iron doped with some impurities like carbon to make it even tougher, just like we explained basically how tin makes copper harder and tougher, rendering bronze. Iron and steel are used in applications in which strength and economy is to be maximized and weight is not an issue. Another special feature of iron is resistance to fatigue. Metal fatigue occurs when a part is subject to vibrations over long periods of time which causes the metal to become brittle and fail. Iron and steel can endure infinite vibration cycles as long as they occur below that particular allotrope's endurance stress.

Iron is unique because it has the most stable nucleus featuring the highest binding energy per nucleon. This means that it is harder to remove a member of iron's nucleus than any other element. Elements with proton counts less than iron undergo fusion to become more stable, and those with proton counts above iron must undergo fission to increase stability. This will be demonstrated later in the Periodic Tables in this book and in the Tree Model.



In the Bible, iron is spoken of correctly as a mined material which needs smelting and purification. Throughout the Bible, we see iron used for just about everything, including elements of temple construction. One provocative and scary image of iron are the iron teeth of the beasts in Revelation. Much like brass and bronze biphasic constituency, stable iron's nucleon count has profound significance with 26 protons and 30 neutrons. There exists another "Rosetta Stone" prophecy in Daniel 4 that we will unpack in various places in this book. The story speaks of a strong tree, cut down leaving only the stump and roots in the Earth, with the stump bound with two bands, one of iron, 26 and brass 29,30. The first dream of Nebuchadnezzar, featuring the statue, is a periodic table as we will see later. His second dream is also a general form of several other periodic tables and models, namely the Tree Model and even the Body Model as we will see.

My life has also proceeded through the metallic ages, as it were. One would think from the context of this book, that the Marines would have been my "Iron Age" with the forged steel portrayed in the commercials. But in reality, I have come to realize that my Marine Corps experience was my Bronze Age. Before writing this section, I was wondering what my experience with Iron has been. Examples began to flash before me, all from a very short but profound 6-month transitional period of my life. When I left California for the U.P of Michigan, I spent the summer in El Paso, TX. I heard there was an opportunity for a job at a transmission shop needing someone to build a 20' X 8' billboard sign for "All Transmissions" in Canutillo, TX. I went to talk to Steve, the owner and master builder and got the job. I will never forget my first day of work. It was hot, hard, heavy work at heights (I am afraid of heights) with welding (never welded) in the hot West Texas sun. I got a five-minute tutorial on welding from Steve. The only work already done on the sign was the three stanchions and a portion of the bottom frame. I was working with long pieces of angle iron, welding them together into an 8' by 20' frame. It took all everything I had to build this billboard, including a broken rib, but I successfully finished the sign and it is still there.

After finishing the sign, I went "on the road" with a construction crew that built gas station canopies, requiring extensive iron work, teardown and new construction hanging iron. The easy part of the job ended when the crew went back to Tulsa and I stayed in Texas. When the boss came back alone, that was when the hard work truly began. Doing new constructions was not fun for someone afraid of heights, as I rightly endured endless ridicule from my boss. However, it was a summer I will never forget, memories I treasure and I emerged stronger because I had picked up some new skills. This story is the perfect transition to Clay because we must become clay, and open to new things, and sometimes endure uncomfortable to come to be what the Lord wants us to be.

### Clay: Aluminum + Silicon + Magnesium

aluminium 13 <b>Al</b> 26.982	silicon 14 <b>Si</b> 28.086	magnesium 12 <b>Mg</b> 24.305
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Although clay is not an element or alloy, it is a typically a mixture of aluminum, silicon and magnesium and other common elements found in the crust of the Earth. Clay is

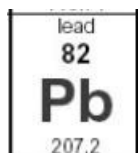
still a very useful material, especially in building. It has been used for pipe since ancient times. Many Roman cities such as Caesarea featured clay piping. Clay-tile roofing is highly desirable in the Southwest for its durability and rustic appearance.

Early uses of clay harken back to the earliest foundations of human existence because clay is relatively easy to find and form into any shape desired. And with fire, it can be cured and create stable and durable stoneware such as pots and building materials for houses. We find ancient artifacts such as toys, jewelry and other iconography in the Holy Land. It is helping archeologists prove the efficacy of Bible and the existence of patriarchs such as King David. I have actually held an ancient cuneiform from Ur of the Chaldees. These small clay tablets were used for recordkeeping and writing.

We read in Genesis that Adam was formed from the dust of the ground. We also learn that God is our Maker and as we spin on the Earth, He is molding us as a potter does clay on his wheel. Clay must be wet and pliable to be able to be molded into the proper shape. If the clay is hardened and obstinate, the clay will mar in the Maker's hands and be cast away. Once the clay object achieves its proper shape, it is dried and fired to permanently sinter the particles together. We will also examine the clay feet of the Statue in Daniel. The clay is found to be well-placed in the context of this story as well numerically as we will see in the Daniel Periodic Table section.

I am a certified "Jungle Expert". In 1986, I received my "banana boat", a patch signifying completion of training at JOTC, Fort Sherman, Panama. My closest encounter with clay was there, as the reddish-brown Panamanian soils are rich in the slippery substance. The training was 30 days and we were taught how to survive and fight in the jungle. I had been in the jungles of Thailand and the Philippines previously, but they did not compare to what I experienced at Fort Sherman. I learned a lot from this training, such as the "monkey fist" knot that I have used so many times. But the biggest thing I learned was from the final course that we had to run. There was a point in the course where you came out of the water and had to get your group over this high wet clay embankment. It hard to contain my laughter as I write this because we looked like a bunch of mudpuppies emerging from the water trying to get up this ridge. It took teamwork and endurance but we all got up that hill and were so tired dirty and wet at the end of the course. You had to be careful in this jungle because you always had to watch what you reach out for to pull yourself up. There were so many of these pitch black poisonous thorny plants growing in this region. And wet clay will test anyone's endurance, similar also to the Volkslauf mud run I did with my squad in 1988.

### Lead



Lead is soft, very dense material with a low melting point. Rarely found in elemental form, lead is also primarily found in its sulfide form, commonly known as "Galena". It normally has a silvery appearance when freshly produced,

quickly tarnishing to a dull grey when exposed to air. Because of its workability and low melting point, it was a very useful metal have been applied to just about everything. Major historical applications include car batteries, shot, bullets, plumbing, paint, and as noted before, solder. Pewter, a lead alloy with tin was used in arts and crafts in earlier times for figurines, vases and plates. Modern pewter alloy is more of a tin, copper constituency. Unfortunately, we have learned over time how toxic Lead is, and are working to remove it from those uses which involve direct human contact or food and water conveyance. It remains, however a very effective shield for radiation and also has many uses in chemistry.

Among all of the elements, Lead had the unique distinction of being the largest naturally occurring stable element in existence. This being the case, it is the endpoint of many decay processes of the larger unstable radioactive elements, such as Uranium. This is an important piece of information, because one of my Noah's Ark Periodic Tables, the Nuclear Model, demonstrates this exclusive positioning of Lead in the Periodic Table. The Noah's Ark Nuclear Model also demonstrates the fact that the common isotope of Lead-208 has 82 protons and 126 neutrons, both "magic numbers" as referred to earlier.

Lead is a vibrant contributor to biblical prophecy. We see it mentioned many times in regards to its heft. The bible correctly asserts that lead may be purified by fire, as it is listed among similar elements we have already discussed. This principal applies to all of us implying we all have impurities which will be removed by fire if undealt with before the Judgement. But there is one instance in the bible in which lead is used as a covering. In Zechariah 5, lead is used to cover an ephah in which contains a woman. We dedicate an entire chapter to this prophecy it a periodic table of the elements.

In 1979 (still a shy awkward teen) I lived on a pig farm one summer and I helped clean barns and feed the hogs. I was given a special pewter belt buckle featuring a large boar and wore it with pride. I remember one day in 9<sup>th</sup> grade art class we were practicing still-life drawing and I was "volunteered" to be the model for the day. So, I stood up on the desks and was stared at by 25 or so students for an hour. Not pleasant for a kid with dirty clothes, greasy hair and a face full of pimples. However, at the end of the class, I got to see my image from the perspective of my fellow classmates. Initially I was apprehensive to examine these portraits of me, and as one could guess they were all over the board. I saw everything from a stick figure, to what one would expect from a 5-year old, all the way up to just incredible art. It makes me emotional as I am writing this, but one student, Dion drew a simple, nonchalant image of a kid with long hair in his eyes and bell-bottom jeans looking to the side with his thumbs in his belt loops, and little pig belt buckle as almost an afterthought. My self-image improved after that because I saw that I am just a regular kid, but kind of cool in my individuality. His is the image I remember of myself, among all of the stick figures with huge pig belts and frowns, I chose to be the kid who Dion saw that day.

E-Z Table: Easy to Remember Properties of Biblical "Elements" (Wikipedia)				
Element	Melting Point, °C	Density g/cm <sup>3</sup>	Abundance in the Crust of the Earth (CRC)	Periodic Table, Z-Number, "+" Alloy or mixture
Gold	1064	19	4 ppb	Au, 79
Silver	962	10	75 ppb	Ag, 47
Copper	1085	9	60 ppm	Cu, 29
Brass	940	8-9	Man-Made Alloy	Cu, 29 (+ Zn, 30)
Bronze	950	8-9	Man-made Alloy	Cu, 29 (+ Sn, 50)
Iron	1538	8	6%	Fe, 26
Lead	327	11	14 ppm	Pb, 82
Tin	232	7 (β-Tin)	2.3 ppm	Sn, 50
Zinc	420	7	70 ppm	Zn, 30
Clay	1780 (Grog)	2	Al: 8% Si: 28% Mg: 2%	Al, 13 Si, 14 Mg, 12

### FIND THE FOLLOWING SCRIPTURE REFERENCES!!! DISCUSS SIGNIFICANCE

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- Copper in KJV
- Tin in KJV
- Widow's Mite
- Man formed from the Dust of the Ground
- Treasury of the LORD
- Children of Israel depart Egypt with a "High Hand"
- Gold Ark of covenant taken back during the Babylonian captivity
- Solomon had a yearly income of 666 talents of gold
- Shishak, King of Egypt
- The Riches of Abram
- Judas and the 30 pieces of silver
- "Arise and thresh, O Daughter of Zion"
- Moses lifted up the serpent in the Wilderness
- Tree stump bound with iron and brass
- Christ Rod of Iron
- Clay toes
- Woman in the ephah. What is an ephah?

### QUESTIONS FOR STUDY

1. All of the elements in this chapter have a little icon of its Periodic Table entry at the beginning. What is the significance of the little number at the bottom?
2. If you have 10 karat gold chain, what is its purity?

3. If you have a silver 1943 nickel with a “P” on the back, where was it minted?
4. How much do you get per pound of miscellaneous copper wire/cable?
5. In pipe-fitting, why must you be careful when tightening a brass fitting over a stainless-steel fitting?
6. What are some differences between cast iron and iron that is worked by a blacksmith?
7. What comprises a modern “tin can”?
8. Clay comes naturally from the earth, but of what is the dirt in your own backyard comprised?
9. What is ppb, ppm?
10. Does the density of materials change with temperature or state? Why? Give examples.

### **FURTHER READING**

Dictionary of Bible Themes, Martin H. Manser

Easton’s Bible Dictionary

Orr, James, M.A., D.D. General Editor. "International Standard Bible Encyclopedia". 1915.

The CRC Handbook of Chemistry and Physics, 84th edition. Boca Raton, FL: CRC Press.

Encyclopedia Britannica

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### **ABOUT THE AUTHOR**

Derek Marshall of East Lansing, MI is an electrical engineer who holds a bachelor’s degree in Physics from Michigan State University. An inventor and former Marine, Derek discovered the Creation Function in 2005 and has applied it to many of the Bible’s more difficult topics as well as questions in Modern Physics, Chemistry, and Mathematics.

This is a sample of the first chapter of my book preliminarily titled *Periodic Tables of the Bible*. My website is available to provide additional information where it is said “Later in this book...” Derek’s Desk Issues give a preliminary description of the various Periodic Tables I have found in the Bible.

<https://CreationFunction.com/dereks-desk>

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