

By themselves, many of the individual examples below could be considered to be a “stretch” and mere coincidence. But taken as a whole, it is difficult not to see the Creator’s genius, power, and faithfulness at work in his creation. Creation was intentionally structured to be “metaphorical” – a reflection of the creator. This “essay” explores some often overlooked manifestations.

*After a while, the word “coincidence” seems silly.*

At this point in this essay’s existence, it is not a scholarly work – much of the information was obtained from Wikipedia and has not been confirmed. It is in desperate need of better biblical connections and interpretations and improved writing. None the less, I think it does reveal some thoughts not commonly (if at all) expressed elsewhere. *Ken Lulay, May 2012*

### **God is Faithful to His Word**

This essay explores the relationship of two manifestations of the Word of God: Holy Scripture and the natural universe. Both are the Word of God, but in different forms. Holy Scripture is a verbal expression and as Genesis tells us, the universe itself was created by Word (*God said, let there be...*). God’s Word is more than verbiage, when God speaks, reality is formed. Both Scripture and nature are the Word of God.

God created the heavens and earth to reveal Himself, His nature. He had complete freedom as creator. There is so much about the structure of the universe that we take for granted; so much we fail to consider. Did God *need* to create atoms in order to create “humans”? Do helium atoms really *need* to prefer to have 2 neutrons while hydrogen has none? Does light *have* to exist? Is it *necessary* for humans to see light – why not survive with echolocation? Was it *necessary* for the nation of Israel to be formed with 12 tribes? Did there *need* to be 12 apostles? Perhaps these are all pointless questions – the fact is, the universe does contain atoms, helium does prefer 2 neutrons and hydrogen none, there is light and we have eyes. There were 12 tribes of Israel and 12 apostles. None of this is by accident; none of it is without meaning. Christ did not begin his teaching at age 30 or age 12 or even at the Incarnation. He began his teaching at the beginning of creation. In the beginning was the Word...

What is the common language that scripture and nature share? How can the physical world speak? Two forms of vocabulary will be utilized in this essay: metaphorical and numerical. Metaphors are literary tools that reveal intangible truth by comparison with familiar truth. God created the heavens and earth and in so doing, he reveals Himself, His nature. Scripture makes such statements as “God is light.” Certainly, God being infinite cannot be defined. “Light” does not fully explain God but does make known an aspect of His being. God is far more than “light.” Yet, there are characteristics of light that reveal the nature of God, perhaps far more than we appreciate. Such metaphors or analogies will be discussed in this essay in unique ways.

In modern English, when someone says “*I am number one*” it is understood as “*I am the best*.” In this sense, the quality of “one” has meaning beyond the quantity. Similarly, Scripture’s use of quantities transcends the arithmetic meaning. Arithmetically, the difference between the

quantities of 6 and 7 is small ( $7 - 6 = 1$ ). Biblically, the quantities of 6 and 7 often are *opposite*. Six may signify incompleteness or imperfection and *seven* generally signifies completeness or complete relationship between God and His creation. We know this, not because God gave us a dictionary of numerical meanings, but by studying the way numbers are used in scripture.

Numbers express deeper qualitative meaning that go beyond the quantitative interpretation. The intriguing hypothesis put forth here is that when God created heaven and earth, he spoke using the same “language” as in Holy Scripture. As the examples provided below will indicate, quantities in nature are transcendent. The qualitative meaning of quantities and proportions that nature has sown throughout the fabric of the world correlates amazingly well with scriptural interpretation of numbers.

God is faithful to his Word.

It should be noted that this is not a new concept. A quick internet search will reveal some of the examples provided below. However, it is hoped that by providing a relatively comprehensive description of examples, the reader may understand these examples are not mere human metaphors, but are real. The universe in many ways was created to be a metaphor – to help reveal and express the creator.

First we will take a brief look at various biblical numbers, and then we will discuss how these numbers reflect the same meaning in nature.

### **Biblical Numbers**

Right from the beginning of scripture, we see numbers being used to reveal qualitative meaning. To summarize the beginning of Genesis:

- On the First day God said: let there be light and there was light. God separated light from dark. He named the light day and the darkness night.
- On the Second day God Said: let there be a dome to separate waters, he named the dome the sky.
- On the Third day God said: let the water under the sky be gathered into a single basin so land may appear. God called the dry land “the earth” and the basin of water “the sea.” Then God said “let the earth bring forth vegetation (plants and seeds).
- On the Fourth day God said: let there be lights in the sky to separate day from night. Let them mark fixed times and serve as luminaries to shed light on the earth. God made two great lights to govern day and night, and He made stars, and set them in the dome of the sky, to govern day and night and to separate light from dark.
- On the Fifth day God said: let the water team with the abundance of living creatures, and on the earth let birds fly beneath the dome of the sky.
- On the Sixth day God said: let the earth bring forth all kinds of creatures. God said let us make man in our image. Let them have dominion. God said, “I give you all the fruits and fish and birds and living creatures”
- On the Seventh day: God ceased work and blessed the 7<sup>th</sup> day.

Most obviously, we see the use of 7 as complete and 6 is less than complete; it is incomplete. But if we look closer, we see examples of qualitative meanings for 3 and 4 as well. These numbers are woven into this story in a multitude of ways.

**One {1}:** Throughout scripture we see that “God is one”. The quantity of one is used to show unity of God. It is no coincidence that light was made on the first day. Light is an image of God. God is eternal without beginning, but he is the first thing – before all things.

**Three {3}:** The Father, Son, and Holy Spirit are three persons in one. God is Triune. The number three is often used to signify holiness, Godliness, life/new life, complete; these describe God:

- The earth was separated from the waters and brought forth life on the 3<sup>rd</sup> day
- Day 3 was only the first of three days on which life was created (days 3, 5 and 6).
- There were 3 divisions of the Tabernacle (the dwelling place of God on earth) and the Temple in Jerusalem: the Outer Court, the Holy Place, and the Holy of Holies
  - There were three Holy items in the Holy of Holies: lamp stand of seven lights (menorah), the table of the bread of the presence, and the arc of the covenant.
    - The arc of the covenant, which resided in the Holy of Holies, contained 3 items (tablets of the commandments, jar of manna, staff of Aaron).
- Jesus rose from the dead on the 3<sup>rd</sup> day.
- There are three theological virtues: faith, hope, and charity

The relationship between the quantity 3 and the reality of the Triune nature of God shows that the qualitative message communicated by numbers is more than symbolic. The reality of the Trinity transcends the number 3. “Three” was created by God to be a metaphor for God.

**Four {3 and 1, 4}** The number 4 is used to signify creation or the relationship of God to His creation. The number 4 is the first example of  $x+1$ ; in this case,  $3+1$ . In other words, its meaning is based off of the preceding number (3). It is often presented as four things with one of the four being distinct from the others; hence, it is often shown as “3 and 1” (4). Four comes after 3 as creation comes after the creator. “In the beginning, God created...” therefore, creation is the fourth thing (God is the first three).

Since God is faithful to His Word, and we have seen that there is reality in the meaning of the number 3, we should expect to see reality in the number 4. The number 4 signifies creation – that’s us! We are creation, we are immersed in creation! The quantity 4 should be easy to find in creation (as we will see later). Since “4” is used to show His creative works (effectively God plus one), it is often used in scripture as “3 and 1” but not always:

- {4} The physical/material world was completed on the fourth day (the 5<sup>th</sup> and 6<sup>th</sup> day involved creation of life only).
- {3 and 1} Of these four days, life was created only on day 3. Three days without created life, one day with.
- {3 and 1} Life was created over a 4-day span (days 3 through 6) but no life was created on day 4 (3 days of created life, 1 day without).

- {3 and 1} Life was created on the third day, but it was the fourth creation. It was preceded by light (day 1), a dome to separate the waters (day 2), and dry land (day 3). This shows the intimate relationship between God and his creation – between the numbers 3 and 4.
- {4} Time, which is the fourth dimension, was created on the fourth day – luminaries were placed in the sky to mark the passage of time.
- {4} There were four cups on the central shaft of the Menorah [Exodus 25:34]
- {4} Four women gave birth to the fathers of the 12 sons (tribes) of Israel
- The 12 tribes of Israel camp divided into 4 parts when camping around the Tabernacle.
- Four women are listed in Matthew's genealogy of Jesus.
- Since he was a creature, Lazarus spent 4 days in the tomb. Jesus, being divine, rose on the third day.

**Six {6}: The number 6 is used to signify “incompleteness,” “man,” or “evil.” Examples include:**

- Man was created on the 6<sup>th</sup> day
- Man is commanded to labor 6 days
- 666 is the number of the Beast

We will not see much of the number 6 in this investigation. This should be the case as throughout the creation story, God affirmed that His creation was good and complete.

**Seven {6 and 1, 3 and 4, 7}: The number three represents “holy” and four represents “creation;” therefore, 3+4=7 represents divine perfection of His creation. Four communicates creation, 7 signifies completeness of creation or holiness of creation. Many times, the number 7 is described as “6 and 1” as well as “3 and 4.” Examples of “7” in scripture:**

- {6+1} God created the world in 6 days and rested on the 7<sup>th</sup>.
- {6+1} The sacred Menorah has 7 branches and lamps, 3 on each side of a single central shaft. [Exodus 25:31-40].
- {3+4} There were 3 cups shaped like almond blossoms on the side branches of the Menorah and 4 similar cups on the central shaft. [Ex. 25:33-35]
- {6+1} The Tabernacle was built in 6 days and dedicated on the 7<sup>th</sup> [Exodus 40:17]
- {3+4} As discussed in “4” above, Israelite camp divided into 4 parts when camping around the Tabernacle (Nm 2:1-34); three tribes each to the north, east, south and west. As discussed in “3” above, the Tabernacle consisted of 3 parts. . As discussed in “3” above, the Tabernacle consisted of 3 parts. As the Israelites camped, “4” and “3” were united (3+4=7) – as was 12 and 1 (discussed below).
- {3+4} There are 7 Holy Feasts of the Sinai Covenant, 3 are Pilgrim feasts in which every man must go to the Temple in Jerusalem. [Leviticus 23:1-44]
- There are seven gifts of the Holy Spirit
- Cleansing after touching a corpse was to be conducted on day 3 and day 7 (3 and 4). Numbers 19:11-12.

Since 7 is a special number regarding creation, we will see it expressed in special ways.

**Eight {7 and then 1 more}: The number 8 represents “super abundance” or “new life/new creation/new beginning.” While 7 is Divine completeness, 8 is the final and complete Divine**

Perfection. It is the exclamation point beyond 7. It is particularly important when 7 is first established, then later one more is added:

- There were 7 sacred items in the Tabernacle, Exodus 25:10-30:21; 37:1-40:33, Later, the same 7, plus an 8<sup>th</sup> were in the Temple of Solomon. 1 Kings 6:1-13; 2 Chronicles 3:1-5:14
- Jewish male infants were to be circumcised on the 8<sup>th</sup> day indicating their entering into a “new life” – a covenant life with God.
- Seven days reflect “Divine completeness” of creation. Jesus arose from the dead the day after the Sabbath (7<sup>th</sup> day); hence he arose on the 8<sup>th</sup> day – which was the first day of the New Creation.

**Twelve {12}:** The number 12 is used in two very significant creation events. Not in Genesis 1 at the first of creation, but later in Genesis and Exodus at the creation of the nation of Israel. The 12 tribes are the foundation of the nation, and as they escape the Pharo of Egypt, the 12 tribes camp surrounding the one Tabernacle; the place of God. In the New Testament, the 12 apostles surround the Lord many times; most poignantly at the last Supper. This is the New Creation of Christ.

Numbers such as 10, 40 and 50 are also used extensively by scriptures to signify important qualitative meanings, but are not highly relevant here. The following web pages provided many of the biblical explanations given here:

[http://www.bible-history.com/tabernacle/TAB4Numbers\\_and\\_Scripture.htm](http://www.bible-history.com/tabernacle/TAB4Numbers_and_Scripture.htm)

<http://www.agapebiblestudy.com/documents/The%20Significance%20of%20Numbers%20in%20Scripture.htm>

### **Biblical Numbers Identified in Creation**

As discussed above, the number 4 is used in the Word of God to signify creation. However, also as shown above, other quantities are associated with creation as well. Next, we will explore quantities found in nature to show that they are consistent with their interpretation in Holy Scriptures. The reader should keep in mind that the examples presented are not meant to be human created metaphors. The examples are presented to indicate the reality that God is faithful. That His Word is consistent in both in Scripture and in nature.

Several examples will be discussed below and will be grouped into 7 comprehensive categories:

1. Physics – we are physical beings. The physical world is present all around us often without us noticing important aspects.
2. Structure of matter – we, and all that we see, smell, and touch is composed of matter. We will investigate how matter is structured.
3. Biology – we will explore the building blocks of life.
4. Anatomy and physiology – these fields of study explain how the human body is structured and functions. Since Scripture identifies the heart and blood as particularly significant, we will focus only on the cardiovascular system.

5. Earth – this is our home. Many different scientific disciplines study various aspects of the earth (meteorology, geology, mineralogy, seismology, etc.). We will focus on the basic building blocks of earth – predominantly, how it is structured – both above and below ground.
6. Solar system – earth is our home, the solar system is our neighborhood. We will have some, but not too much to discuss about this.
7. Light – unlike the other discussions, our discussion of light will involve some rather metaphorical interpretations without quantities.

The key aspects of each of these subjects will be discussed. This is not meant to be an in depth scientific lesson, therefore, the scientific discussion will be kept basic and limited to relevant subjects. It is not important that the reader understand the scientific details or vocabulary but rather appreciates the significance of the Word.

It should be noted that this is not an attempt to correlate scientific knowledge with biblical accounts of creation nor is it proposed that there is some sort of “secret code” to be broken. Its sole purpose is to show that God used similar vocabulary when He created Scripture and nature.

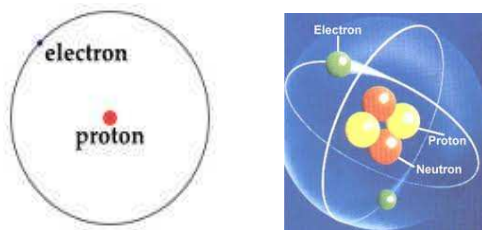
Let’s restate the qualitative interpretation of various numerical quantities that will be meaningful in this discussion:

- **3:** holy or complete
- **3 and 1, 4:** creation
- **6 and 1, 3 and 4, 7:** complete
- **7 and then add 1 more:** The exclamation point to “completeness” or “new creation”
- **12** is the number used to create a “new nation” a “new people of God” “a new structure”

As would be expected, since we are exploring the created world, the majority of our discussions and examples will be based on “3 and 1” (4). However, we will not neglect the other quantities.

## Physics

Before we explore “numbers in nature,” let’s first take a very quick look at atoms. Atoms are basic building blocks making up everything we can see and touch. Neutrons and protons are contained in the atomic nucleus; electrons surround the nucleus. The type of element is defined by the number of protons in the nucleus: hydrogen contains 1 proton, helium has 2, lithium contains 3, and so on. It is the quantity of protons in the nucleus that determine how the electrons interact with other atoms. In effect, protons are the “active” defining ingredient of elements. Neutrons, as their name implies, are electrically neutral and hence they play a more “neutral role” in the behavior of elements (albeit, not a trivial role – they are “glue” to hold the nucleus together). The interaction and bonding between electrons from neighboring atoms is what allows compounds to form and the world as we know it to be constructed. How the electrons behave depends upon the number of protons in the nucleus.



*Hydrogen, the simplest atom contains one proton and one electron. Helium, the next heaviest atom contains 2 protons and 2 neutrons, as well as 2 electrons.*

### *In the beginning...*

“In the beginning, God created heaven and earth. And earth was a formless wasteland” [Gn 1]. This story of creation goes on to explain how God created the earth and all that is in it in six days and God ceased work (rested) on the seventh day. It is the first examples of “six” and “seven.”

According to modern cosmology (the study of the origin and development of the universe) the entire universe was once contained in an infinitesimal point. Not just the matter in the universe, but the entire universe itself, all of space and time, was contained in that “speck.” The universe has been expanding “into itself” ever since the beginning of time. This is known as the Big Bang theory and it is the most widely accepted theory of cosmology. It is strongly supported by observations.

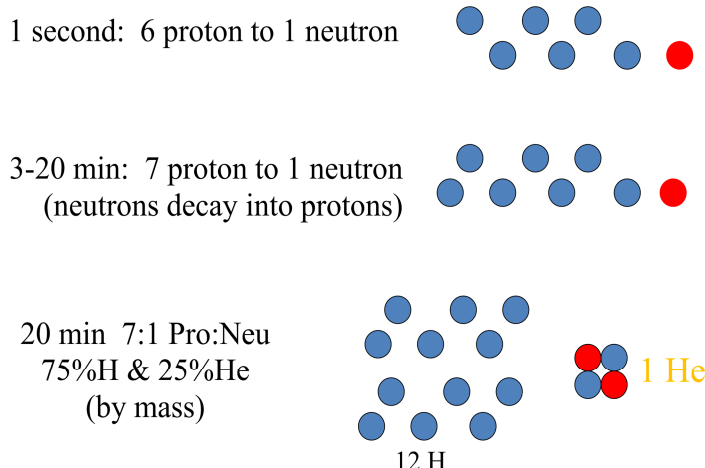
One of these key observations is the abundance of hydrogen and helium in the universe. Nuclear physics shows that the Big Bang would result in the universe initially containing about 75% hydrogen and 25% helium (and much much less than 1% of anything else). By looking deep into space (which is the same as looking far back in time), astronomical observations have been able to confirm this ratio is indeed what existed in the early universe.

How did this come to be? Initially, the universe was too hot for matter to exist. As the universe expanded, it cooled. Subatomic particles “precipitated” from the existing energy – first quarks, leptons, and other elementary particles, then these formed protons and neutrons. After about 1 second from the beginning of the Big Bang, the formation of protons and neutrons was complete (the creation of protons and neutrons ceased). While protons and neutrons form atomic nuclei, the temperature was too high for them to combine as nuclei. They remained “free” and unassociated. However, this era of free neutrons and protons would not last long. The universe was about ready to bring forth atoms – a new epoch was dawning.

From about 3 minutes through 20 minutes after the beginning, the temperature had cooled to a point where the universe was conducive to nuclei formation. During this time period, the universe transformed from the era of free particles to the era of atomic nuclei. Also, while nuclei were forming, free neutrons were transforming into protons. “Free” neutrons (neutrons not contained in atomic nuclei) are unstable and decay relatively quickly into protons. By the time

nuclei formation had ceased, there were fewer neutrons and more protons in the universe than in the previous era of free particles.

Now to the numbers: Once the creation of protons and neutrons had ceased (about 1 minute after the Big Bang), there were about 6 protons for each neutron. Once the creation of atomic nuclei had ceased (about 20 minutes), this proportion had changed to about 7 protons to each neutron. This proton to neutron ratio of 7:1 resulted in two elements: hydrogen and helium. The universe now contained 75% hydrogen and 25% helium. While the universe has been busy for the past 13 billion years converting hydrogen to heavier elements (mostly by stellar nucleosynthesis), these proportions have changed only minimally.



### Biblical Connections:

As with the Genesis story of creation, we see many numbers interwoven in the “physics” story of creation. The Genesis story spans 7 days, yet we see 3, 4, and 7 interwoven a multitude of times within the story. In physics, we see 4, 6+1, 7+1, and 12 woven. These numbers are used to express creation, complete creation, new creation, and new structure.

{6 and 1} In the beginning, when matter was created, it consisted of 6 parts protons and 1 part neutron (6 “active” particles for every 1 “neutral” particle). In the beginning, God created for 6 days followed by 1 day of rest.

{7 and 1} After a few minutes, the proton to neutron ratio changed from 6:1 to 7:1 (becoming “7 and 1” or “8”). As we have discussed, “7 and 1” (8) is used biblically as an “exclamation point” for creation or signifies a “new creation.”

{3 and 1} As a result of the proton to neutron ratio, the infant universe contained about 75% hydrogen and 25% helium. Putting it another way, the universe contained 3 parts hydrogen to 1 part helium (“3 and 1”). 4 is the number of creation; especially when used as “3 and 1.”



{ 12 } The early universe by weight was indeed 3 parts hydrogen to 1 part helium. But helium is 4 times heavier than hydrogen (it contains 2 neutrons and 2 protons, where as hydrogen contains only 1 proton). If we were to count atoms, we would see that the universe contained 12 hydrogen atoms for each helium atom. In both the new and old testaments, when God created a new nation, he had 12 tribes or 12 people around him. Twelve is the number for new structure – new civilization.

From the first moments of creation, the proportion of protons to neutrons (the building blocks of matter) is consistent with scriptural use of numbers. The amazing transformation of the universe from an epoch of free subatomic particles to an epoch of atomic nuclei produced ratios that are consistent with biblical interpretations.

It is amazing how the universe started with proton to neutron ratio of 6:1, then became 7:1. Biblical numbers tell us this is “Divine creation” followed by a “new creation” or “creation with an exclamation point.” Not only was the 7:1 ratio an exclamation point, it allowed for the hydrogen to helium ratio to be simultaneously 3:1 and 12:1; “3 and 1” being “creation” “12 and 1” being “creation of a new nation.” Either the God of Abraham is truly all-powerful and faithful or the god of *Random Chance* is sure good at creating coincidences.

*For in him we live and move and have our being [Acts 17:28]*

{ 3 and 1 } Humans have always been aware of time and space. However, prior to the 20<sup>th</sup> century, space and time were considered to be independent and totally unrelated to each other. But according to Einstein’s theory of relativity, space and time are inseparable. We don’t live in space and time, we live in a four dimensional world where space and time are interconnected. This is referred to as space-time. Space-time consists of three spacial dimensions (length, width, height) and one temporal dimension. Effectively, time became the fourth dimension. According to Genesis, celestial bodies were created on the fourth day to mark the passage of time.

Hypotheses abound regarding dimensions at scales much smaller than atoms, and at distances much greater than galaxies. These ideas, even if true, do not alter the fact that “our world,” the world in which we live and move and have our being, has  $3+1=4$  dimensions.

*Fundamental Forces (Fundamental Interactions)...*

{ 3 and 1 } Physicists have identified that there are 4 fundamental forces in nature: gravity plus the 3 so-called “gauge interactions” (electromagnetic, weak, and strong interactions). The gauge interactions are responsible for atomic structure and interactions (they are responsible for such things as holding electrons, neutrons, and protons in place). According to Grand Unified Theories, the three gauge interactions were unified as a single force at the very beginning of the universe when temperatures were extreme. They are all different manifestations of a single underlying force. This is a strong parallel with the Triune nature of God: three persons in one. Many physicists believe that at an even deeper level gravity too, is united with the other three forces; however, this so-called “theory of everything” is a long way from being developed. Certainly, the nature of gravity is fundamentally different than the 3 gauge interactions; yet all four are the fundamental forces of the universe. These four forces are the underlying forces that hold everything in the universe together. There are  $3+1=4$  fundamental forces.

## Structure of Matter

Warning, the next few paragraphs have some very odd terms and lots of numbers. If your eyes start to glaze over, that's okay. Go get a cookie and a glass of milk. It really is fun...

### *The Science...*

The most elementary particles we know of are quarks and leptons. As far as known, they are not composed of smaller particles (hence, they are "elementary"). Protons and neutrons are composed of three quarks each. Protons are composed of two Up and one Down quark (the titles of "Up" and "Down" have no significance). Neutrons are composed of two Down and one Up quark. Electrons are a type of lepton and therefore, electrons are elementary particles (not composed of smaller particles).

There are three sets (called generations) of quarks and leptons and within each generation there are two different quarks and two different leptons. Therefore, there are 4 members of each generation, and there are three generations (4 and 3, but in this case, it would be  $4 \times 3 = 12$ ). Of these, only the first generation particles (Up quark, Down quark, electron, and electron neutrino) are stable. The second and third generations of particles only exist due to high energy collisions, such as cosmic rays, and very quickly decay into their corresponding first generation particle.

### *Scriptural Connections...*

{3 and 1} While there are 12 different quarks and leptons, there are only 4 which are stable. Of these, 3 have charge and 1 (neutrinos) is neutral.

{3 and 4, 7} As we have seen, protons define the elements; all elements (hydrogen, etc.) are defined by the number of protons in the nucleus. Protons are composed of three quarks (2 Up and 1 Down). Quarks generate all 4 fundamental interactions – protons are 3 quarks and 4 forces (7)! It seems appropriate that the particle responsible for directing the formation of matter should contain the number 7 (complete/holy creation)

{3 and 1} While protons "direct" the behavior of the elements, electrons are what allow one atom to bind with another. It is *their behavior that allows complex structure to be created*. Without electrons behaving and interacting as they do, we would not exist. Electrons are an elementary particle with no known sub-particle. They have 3 fundamental interactions (gravitation, electromagnetism, and weak interactions). Electrons are 1 particle and 3 interactions. Since it is their behavior, which is directed by the protons, that allows creation of structure, it seems appropriate that they are  $3+1=4$ .

{3} Neutrinos (distinct from "neutrons") are extremely small and neutrally charged particles; therefore, they rarely interact with matter. In fact, before you finish reading this sentence, billions of neutrinos, streaming towards you from outer space, will pass through your body without contacting a single atom in your body. Countless billions will pass through the earth with only a small number interacting with an atom from time to time. They are a single particle and have two fundamental interactions (gravitation and weak interactions); therefore, they are

$2+1=3$ . Neutrinos are a metaphor for God: three is their number and they are always in you and all around you, yet your senses do not detect them.

{6?} There are 6 known quarks and 6 known leptons. While quarks and leptons are the building blocks of atoms, they themselves are in a way incomplete. By themselves, they do not make up structured matter – they must work as a team to form the basic building blocks known as atoms. Since the possibility remains that there are additional, yet to be discovered leptons or quarks, I hesitate to connect this with scripture interpretations; however, at least for now (and perhaps for all time) the quantity of 6 is consistent with scriptural meaning (6=incomplete).

*He is before all things, and in him all things hold together [Col 1:17]*

Atoms are the basic unit of matter – atoms are complete. They consist of 3 particles: protons, neutrons, and electrons. Scripturally, 3 means real, complete, or holy. This is not a bad description of atoms, but since atoms are the building blocks, they are very much associated with “earthly creation;” hence, the number 4 seems like a better representation, and the number 7 would be even better – divine, complete creation. Not only are atoms composed of 3 types of particles, they create and contain all four fundamental interactions. Atoms are “3 and 4” (7)! Remember, the four fundamental interactions are the glue of the universe. They hold atomic nuclei together, they bind atoms to atoms, they keep the earth revolving around the Sun, and they hold stars in galaxies and bind galaxies to galaxies. Metaphorically speaking, the 3 particles of an atom can represent the Trinity – and in them all things are held together. [Col 1:17]

*and the Spirit of God was hovering over the face of the waters. [Gn 1:2]*

{3 and 1} So far, we have looked at the very small – the basic building blocks. Now we explore how the building blocks of matter are arranged. There are common states of matter on earth: solid, liquid, and gas.  $H_2O$  is found in all three states; ice, water, vapor. But there is a fourth naturally occurring state of matter. When gas is heated to extreme temperatures, the electrons are stripped from their atoms (become disassociated from the atoms) – this is plasma; the fourth state. Three of the four states exist in abundance on earth (solid, liquid, gas). The human body contains all three of these states. The fourth, plasma, is an extreme state; at least from a human perspective. While plasma is far less common on earth than the other 3 states, it is by far the most abundant state in the universe as stars themselves are almost pure plasma.

{6 and 1} On earth, plasma is created by seven natural phenomena (lightening, ball lightning, Saint Elmo’s Fire, Upper Atmosphere lightening, ionosphere, polar aurorae, and hot flames). Six of these are atmospheric, and one is terrestrial based (fire).

{3 and 1} States of matter are an example of “3 and 1” – 3 states that exist in the body, one does not. God has used all four states to reach out to humanity (solid, liquid, gas, plasma – respectively):

- *Take, eat; this is my body [Mt 26:26]*
- *this is My blood of the covenant, which is poured out for many for forgiveness of sins [Mt 26:28]*
- *Then the Lord God formed the man of dust from the ground and breathed into his nostrils the breath of life, and the man became a living creature. [Gn 2:7]*

- *Then, what looked like flames or tongues of fire appeared and settled on each of them.*  
[Acts 2:3]

The “3 and 1” nature of the states of matter can be metaphorically applied to God and his creation. God is One. God is Light. Plasma, which is abundant throughout the universe, is what gives light to the universe – in the sky and on earth. Humanity and the earth are composed of the other three states of matter. God surrounds His creation and bathes it in his light.

### **Biology**

{3 and 4, 7} Each cell in your body contains a complete set of chromosomes (23 pairs – why 23, I have no biblical explanation). Each chromosome contains DNA which is the genetic instruction for life. DNA is a complex molecule that contains 3 basic parts: sugar, phosphate group, and bases. The bases are paired together and are the genetic code that makes you, you. There many billion base-pairs in each strand of DNA that define your genetics. Amazingly, this code is responsible for every genetic aspect of your body: the billions of cells in your brain, the color of your eyes, the size of your feet. Yet it is amazingly simple. There are only 4 different bases that create the strands of DNA: cytosine, thymine, guanine, and adenine. Three of the 4 bases are also found in RNA. RNA does not include thymine, rather it includes uracil. Therefore, once again, we don’t have “4” bases, rather there are 3 and 1 (equals 4). The very building blocks of genetics, of life, contains 3 parts (sugar, phosphate, base), and 3+1 bases; for final number of 7.

{3 and 1} Going deeper, the four bases found in DNA are composed of four elements (carbon, nitrogen, oxygen, hydrogen):  $C_4H_5N_3O$  (cytosine),  $C_5H_6N_2O_2$  (thymine),  $C_5H_5N_5O$  (guanine)  $C_5H_5N_5$  and (adenine). Of these four elements, 3 are created by nucleosynthesis inside of stars and one (hydrogen) was created in the first moments of the Big Bang. Interesting, the three elements (C, N, O) are critical catalysts for converting hydrogen into helium inside of stars in the so-called CNO cycle.

{4} Carbon, which plays a critical role in stellar nucleosynthesis and is the backbone of life, has 4 valence electrons. Valance electrons are the key players in directing chemical reaction. The 4 valence electrons are what allow carbon to be the backbone to life.

{4} While DNA is the instructions for life, cells are the basic building blocks. Cells contain 4 parts: cell membrane, organals (of which there are many), nucleus, and “fluid.”

### **Anatomy and Physiology**

While the human body has many organs and system, three have special scriptural significance: the womb, blood and the heart. The heart and blood are mentioned several times and play a significant role in salvation history (life is “contained in the blood,” Jesus’ heart was pierced, Jesus’ blood was poured out...).

{3 and 4 equal 7} The heart is a pump. To do its job, it has 4 chambers (two superior atria and two inferior ventricles). The heart itself is surrounded by 3 layers (epicardium, myocardium,

endothelium). Metaphorically, God (3) surrounds his most precious creation (4) – the human heart. Our hearts are in the hands of God.

{3 and 1} There are 3 cardiac nerves: the superior, middle, and inferior cardiac nerves. A healthy heart obeys the commands from the 3 nerves. If “4” is the creation and “3” is the creator – then “4” obeys “3”.

{3 and 4 equals 7} Similarly, blood has 4 primary components (white cells, red cells, platelets, plasma). And like the heart, the walls of the arteries, which carry blood away from the heart, have 3 layers (Tunica intima, Tunica media, Tunica adventitia). Again, God surrounds the life of his creation.

{4} No individual can represent the whole of humanity. Together, we are. There are 4 blood types: A, B, AB, O.

{3} Within the womb, life begins. Like the created heart which is surrounded by three layers, the created life is nurtured within the three layers of the womb: the endometrium, myometrium, and perimetrium. And the fetus is “born in water” (sound like baptism?).

### **Earth**

{3 and 1} There are 3 basic layers to our planet: core, mantle and crust. Therefore, we can consider the earth to be “3 and 1.” There are three different internal layers, plus the atmosphere in which we live.

{3 and 1} The atmosphere actually is considered to have five layers. Air pressure gets less and less as we move out away from the planet. In the last layer (exosphere), the gas particles are so far apart they no longer interact with each other. This layer extends indefinitely and can legitimately be considered “outer space” and not part of earth. If that is the case, then there are “3 and 1” layers of atmosphere – the one we live in and three above us.

{3 and 1 and 3; 7} Combining the above, we see that there are 3 layers of earth below us, the atmosphere in which we live, and three layers above us. There are a total of seven layers of earth – and an eighth layer if we consider “outer space” to be a “layer.”

{3 and 1} God took earth and breathed life into it [Gn 2]. “Earth” or soil is composed of 4 different materials, 3 solids (rock, minerals, organic matter) and one liquid (water).

*two tablets of stone which were the “testimony”. He is the corner stone rejected by the builders. Upon this rock, I will build my church...*

{3} Three represents holiness. Rocks are a reflection of the nature of God: solid, non-changing/eternal. Jesus is referred to as the rock of salvation. There are three types of rock: igneous, metamorphic, and sedimentary.

{3} He told the servants to fill the six jars with water. Water flowed from His side... Water is used throughout scripture in holy ways. Water is used in baptism. Each water molecule contains 3 atoms: 2 hydrogen and 1 oxygen.

## Solar System

{6 and 1} There are seven celestial objects visible without telescopes: Sun, Moon, Mercury, Venus, Mars, Jupiter, and Saturn. Of these, only one gives light and warmth (the Sun, in case you were wondering), the others reflect the light.

While astronomers argue about the number of planets, what they really are arguing is the “definition” of planet. It is easy to classify planets around the sun into at least three very different categories: rocky inner planets, gas giants, and dwarf planets. There is no disagreement: there are four rocky inner planets and there are four gas giants. Nobody knows how many dwarf planets there are – most likely dozens or many hundreds.

{3 and 1} In the Genesis story of creation, the physical world was created in the first four days (only life was created on days 5 and 6). In these first four days for creation, only on the third day was life created. Of the first four planets around the Sun (the four rocky planets) only the third planet has life. Some speculate that there is life on Mars. So far there is no convincing evidence of any sort of life, and there certainly is no advanced life.

## Light

(1 John 1:5) *“This is the message we have heard from him and declare to you: God is light; in him there is no darkness at all.”*

So far we have explored the correlation of biblical numbers to quantities in nature. The discussion of light will be metaphorical and without numerical interpretations. Light has characteristics of God’s nature for a reason. Jesus did not likely ask himself “Gee, what can I use to describe my nature? I know, light would be a good metaphor.” God reveals Himself through His creation. God likely created light with intent of it having His own characteristics. “God is light.”

The obvious metaphor is that Christ came to illuminate humanity, and that darkness has no power over light. No matter “how dark” a room is, the darkness is overcome by a single candle. Darkness is the absence of light. Evil is the absence of good. This was probably better understood by Christ’s contemporaries than it is today. But we know more about the physical nature of light now and in this knowledge, we can see that light shares other characteristics as well.

Christ has “dual nature”; He is fully God and fully man. Many heresies have disputed this; some claiming Christ was merely a spirit that appeared to be physical, and others have claimed he was physical, but not truly divine. The Church Fathers are very clear in explaining that Christ truly is God and man; fully both.

Nature transmits energy either through waves or particles. When you hear a gunshot, it is the sound wave that traverses through air to reach your ear. The air particles surrounding the gun do not traverse; it is a pressure wave that travels. However, the bullet itself is a particle. It traverses through the air from the gun to the target. Waves and moving particles both carry energy, but are very different things, they have very different natures. Light, however, behaves simultaneously

as a wave and a particle; fully. It is not “half wave and half particle” nor is it a particle that behaves like a wave; it behaves completely as a wave, and completely as a particle. This so-called *wave-particle duality paradox* is nearly as mysterious as Christ’s dual nature, yet few people have difficulty believing in its existence.

Another similarity between light and God is their “absolute” nature. God is the “ultimate absolute.” He defines and is the definition of all things. The speed of light is the absolute in the universe. Time and space are relative. Time literally runs at different speeds depending upon how fast you are moving (as well as the strength of gravity). If you were to travel away from earth for just a few minutes near the speed of light and return to earth, years will have passed on earth. Time would not have “appeared” to run slower for you, it would have really been slower relative to those on earth. The speed of light, however, is a constant. If you were to measure the speed of light while you are traveling in your spaceship, it will travel away from you in all directions at 186,000 miles per second. The same would be true for your friend on earth. Yet your time is slow compared to theirs. How can this be? Space itself is also relative. To you, your space ship looks the same while you are traveling as when it is in port. However, if your friend on earth were to look at your ship through a telescope, it would look distorted – it is distorted from their perspective. The absolute nature of the speed of light, and the relative nature of space-time, are recognized in Einstein’s theory of relativity. Also, according to relativity, nothing can travel faster than light in a vacuum. All things are relative to light, and nothing can exceed it. Sound familiar?

#### **References, notes....**

science stuff:

<http://csep10.phys.utk.edu/astr162/lect/cosmology/forces.html>

[http://en.wikipedia.org/wiki/Elementary\\_particle](http://en.wikipedia.org/wiki/Elementary_particle)

<http://www.astro.ucla.edu/~wright/BBNS.html>

4+3 or 4 vs 7: <http://www.biblestudy.org/bibleref/meaning-of-numbers-in-bible/4.html> (scroll down from #4)