

# Smoky Mountain Bible Institute

## Biology Cosmology, Logic & Chemistry 102

Welcome back to the lab – put on your lab coat, take a seat and get comfortable. We are going to talk about biology, and to do this, we need to examine and define cosmology (the study of origins), math and logic, thermodynamics and chemistry. If we were studying automobiles, we would be addressing auto parts, methods of propulsion, tools and transportation.

So, let's start with cosmogony, as defined by the National Aeronautics and Space Administration (NASA). "*Cosmology is the study of the structure and changes in the present universe, while the scientific field of cosmogony is concerned with the origin of the universe. Observations about our present universe may not only allow predictions to be made about the future, but they also provide clues to events that happened long ago when...the cosmos began. So—the work of cosmologists and cosmogonists overlaps.*" And because of this, I often incorrectly say cosmology when I mean cosmogony....what fun! When studying origins (which includes biology), we have an eye witness account in Genesis. However, we can also examine all the observable evidence and see how it proclaims its Creator.

Psalms 139 verse 14 tells us that we are "***Fearfully and wonderfully made.***" When we examine God's creation and see how vastly, and irreducibly complex life is, it becomes illogical and irrational to believe that something so complex could exist by accident and without purpose. Here are some examples:

**Mathematics and Logic:** We will discuss logic in more detail when we address the topic of philosophy. Something cannot be both true and false at the same time and the field of mathematics is bound by the rules of logic. Mathematics gives us a way to measure and understand how everything in the universe functions. This order allows us to develop fields such as chemistry, physics, geometry, and algebra—fields that are imperative in understanding and defining life. This is a simple basic example of how the benevolent Creator has organized His creation in a way that is logical and understandable so that we can explore and learn from it to see just how amazing He is. It also allows us to live in a universe with some predictable norms, giving us time to enjoy His great creation as well. We can also use mathematics to estimate the statistical impossibility that life might spontaneously generate from non-life, resulting in a number so infinitesimally small, that to believe it, is an act of faith.

**Chemistry:** We all remember the periodic table of elements from high school chemistry which gives us all the base elements of creation. This science explains mathematically how matter changes and explains how different elements on the periodic table interact with each other. Chemistry explains the composition, behavior, structure, and properties of all matter, as well as the changes it undergoes during chemical reactions. It is because of this science that we can understand with great complexity how living things function. Here is one simple example of a layman's description (me) of how white blood cells work within our immune system. First the body produces them in our bone marrow. Then these cells actually kind of roll along the walls of our veins, waiting for a chemical signal from the vein wall to tell it to stop where it is needed to fight infection. When it gets this signal, the cell latches on to the vein wall and completely reconfigures itself to pass through the vein wall and go to the infected area and absorb the infectious material. It then returns to the blood stream to be disposed of through our kidneys and our bladder or leaves through the wound. I know this is basic high school science, but this is one of thousands of complex systems that functions automatically, in perfect harmony within our bodies, and everything about how it works can be explained with complex chemical reactions. How something so complex could function so well, giving bodies the ability to heal themselves, is miraculous. To believe this to be the result of millions of years of accidents, happenstance and mutations would be so hard to believe it would take an act of faith. And here is another twist: since there was no death, disease or infection before sin, if we had white blood cells before sin came into the world, they had a different function all together. That is something to ponder as we contemplate on how fearfully and wonderfully, we are made.