

## Logic: Fundamental Physical Constants

(Gen 1:1-31)

What are the physical conditions and forces required for the existence of life as we know it? Studying these issues take us into the world of mathematics and physics and the introduction to Fundamental Physical Constants. Take for example:

The gravitational pull of the sun's mass on the earth's mass that maintains the right distance for light and heat so that the earth doesn't get too hot or cold for life and an orbit for seasons and time. Plants need sunlight to grow and animals need plants for food and oxygen. Solar heat produces winds, ocean currents, and clouds to transport water.

The gravitational pull of earth's moon that sets the angle of the earth's axis at 23.5 degrees and affects earth's tides. The gravitational pull of earth and moon sets the moon's orbit and determines our daily sense of time.

What electromagnetic force, in relation to strong / weak nuclear forces, are required to maintain a stable chemical bonding of atoms?

What cosmological constant is required to maintain a universe?

Scholars studying in the field of Fundamental Physical Constants have come to the conclusion that the possibility of randomly arriving at the precise number of each constant and its relationship to the other constants essential for life is infinitely so small that it begs the question, "how is this possible?"

These two sample videos, each with a different bias, introduce you to Fundamental Physical Constants.

Is Our Entire Universe Held Together By One Mysterious Number?

(<https://www.youtube.com/watch?v=XsJhdHVfgx8>)

The fundamental constants and quantities of the universe have been carefully dialed.

([https://www.youtube.com/watch?v=F8vBw\\_GI\\_s8](https://www.youtube.com/watch?v=F8vBw_GI_s8))

After the videos, ask the student: What do you think? Give time for them to share their thoughts whether correct or not.

The objective here is to introduce complex math and science, and observe how scientists resolve the observation of apparent fine tuning with their unfounded speculations. However, without having a background in physics, it is difficult to have a conclusive discussion.

With this introduction, the student can search and look more into this fascinating field of science.