

# Mathematics in the modern world

Science



I learn something that I've never expected. Teachers of my Elementary and High School days have always been saying that " Math is everywhere. Math is around us", without elaborating the true meaning of it. I've always been thinking the purposes of different field of mathematics on our daily lives or it's relation to the environment. Those thoughts like " Is there a such thing as  $x+3$  pesos of an apple or  $3b-5c$  change on the groceries or how mathematics has been created", which would probably be most of us think about it once in a while.

I'm aware to the fact that Mathematics is actually broad, functional and has been a part of people's life since it was originated. But I never thought that it would be too related or much more related to nature. I learn that it math has a genuine role or connection to nature. There are mathematical patterns that appear on the natural world without noticing it, on the waves, insects, plants, animals and anywhere else. For instance, the Logarithmic spiral that can be found on the natural patterns of a chambered nautilus shell, the Fibonacci sequence that can be observe on several parts of botany like the sunflower seeds that create the patterns of the two spirals that goes in opposing direction and so much more. Surprisingly, all of this patterns and sequences are all connected, these things have corresponding measurements and they can form a perfect circle, triangle and square with identical angles. During our class in Mathematics in the Modern World, the aspiration of the sunflower, shell and the dragon fly printed on our math book covers in High School now make sense to me. I remembered one statement from Albert Einstein which I have read on one of those books, it says " Look deeply into nature and you will find many answers". At that moment when I watched the

video, I realized what Albert Einstein's statement really means. I had this thought that Mathematics was neither created nor invented by humans. Because math has been there before we existed, it is naturally occurring. We just discovered math, and we continuously developing it. In which the idea support Leopold Kronecker's statement that " The natural numbers come from God, everything else is man's work". We as humans that have an innate curiosity, constantly learning new ways to find answers to unanswerable questions, to make solutions to unsolvable problems, for we have an infinite eagerness to know the truth, to understand everything.

Just like what our instructor discussed, true enough that mathematics unfold the mystery of nature, organize the patterns, regularities and irregularities, have the ability to predict, help us control the weather, provide tools for calculations and provide questions to think about. If we continue to uncover life biggest conundrums, we will also continue our path towards improvement not only for ourselves but also for everybody else. Because mathematics is an unending problem-solving and trial and error process that lead us to a limitless innovation.