

## The Organization of Nature

Creative Dynamic	Gather	Repeat	Share	Transform
Level	Unit	Pair	Group or field	Compound or new unit
<b>MICROPHYSICAL REALM</b> (Strong, electric, and weak forces. Four quantum numbers in three dimensions)				
Particles	Photons	Particle/antiparticle	Three families of four particles; Three forces in four dimensions	Baryons; confinement by gluons
Atomic	Baryons	Electron-proton pairs Lepton pairs Quark pairs	Four quantum numbers x electrons, protons, and neutrons	Atoms; electron
Molecular	Atoms	Electron shell bonding; Inorganic molecules	Carbon: three Alphas of four nucleons; four valence electrons in third shell	Organic molecules and crystals
DNA	Organic molecules	Double helix; Base pairing	Four bases of three chemical groups	DNA
<b>BIOPHYSICAL REALM</b> (Life force; four nucleotides code in triplets)				
Cell	DNA	Replication	Genetic code; four bases code in triplets	Cell; membrane
Organism	Cell	Cell division	Three functions x four tissues	Organism; skin
Species	Organism	Sexual reproduction	Population structure x evolutionary fitness	Species; reproductive isolation
Gaia	Species	Speciation; hybrids and polyploids	Ecosystem homeostasis; four seasons of three months	Gaia; Earth life Atmosphere
<b>ASTROPHYSICAL REALM</b> (Gravitation; four third-order equations)				
Star	Earth; Gaia	Earth-moon; gravitational orbits	Four x three gravitational field	Star; fusion
Galaxy	Star	Binary stars Earth-sun	Four spiral arms x three supernova generations	Galaxy; heavy elements
Universe	Galaxy	Andromeda Milky Way	Four dimensions x leptons, hadrons, and bosons	Universe; evolutionary time and space
First cause	Universe	Universe/anti-universe	Natural and divine law; four elements x three qualities	First cause; energy, conservation, information

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