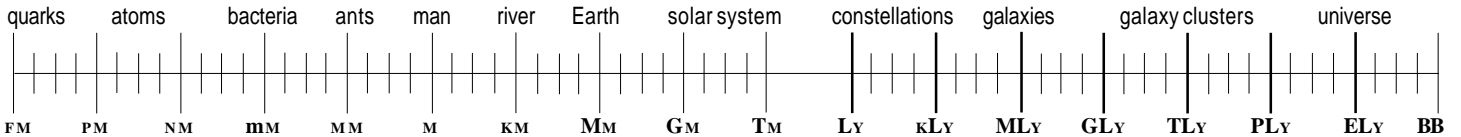
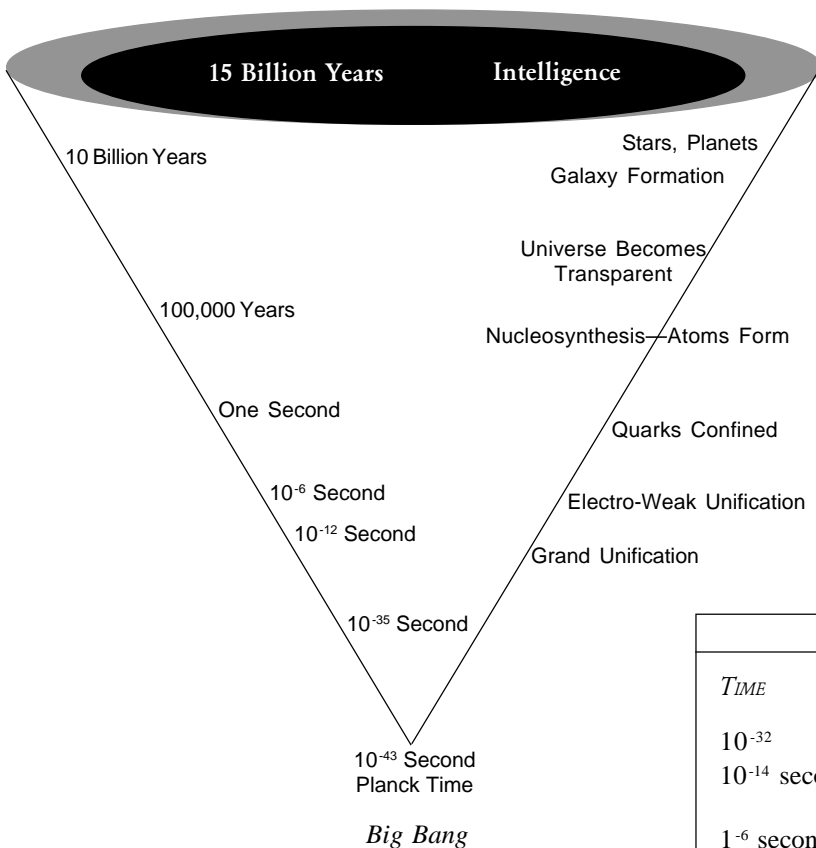


Appendix A

Orders of Magnitude



Cosmic Time Scale



<i>TIME</i>	<i>EVENT</i>	<i>TEMPERATURE</i>
10^{-32}	strong nuclear and electro-weak forces separate.	
10^{-14} seconds	electroweak force separates into weak nuclear and electromagnetic forces.	
10^{-6} seconds	“quark soup” and photons predominate.	
1 second	leptons form, then protons and neutrons.	
1 minute	nuclear fusion; deuterium and a little tritium form.	
3 minutes	helium forms; there are 10 hydrogen nuclei to every helium nucleus.	
1 year		10^7 K
100,000 years	atomic nuclei acquire electrons, forming atoms.	6,000 K
300,000 years	atoms become stable	3,000 K