https://en.wikipedia.org/wiki/Chronology_of_the_universe#Outline

THE HISTORY OF THE UNIVERSE (SUMMARIZED):

Alternative subdivisions of the chronology (overlapping several of the above periods)		
Radiation-dominated era	From inflation (~ 10^{-32} sec) ≈ 47 ka	During this time, the energy density of massless and near-massless relativistic components such as photons and neutrinos, which move at or close to the speed of light, dominates both matter density and dark energy.
Matter-dominated era	47 ka ~ 9.8 Ga[2]	During this time, the energy density of matter dominates both radiation density and dark energy, resulting in a decelerated metric expansion of space.
Dark-energy-dominated era	> 9.8 Ga[9]	Matter density falls below dark energy density (vacuum energy), and expansion of space begins to accelerate. This time happens to correspond roughly to the time of the formation of the Solar System and the evolutionary history of life.
Stelliferous Era	150 Ma ~ 100 Ga	The time between the first formation of Population III stars until the cessation of star formation, leaving all stars in the form of degenerate remnants.
Far future	> 100 Ga	The Stelliferous Era will end as stars eventually die and fewer are born to replace them, leading to a darkening universe. Various theories suggest a number of subsequent possibilities. Assuming proton decay, matter may eventually evaporate into a Dark Era (heat death). Alternatively the universe may collapse in a Big Crunch. Other suggested ends include a false vacuum catastrophe or a Big Rip as possible ends to the universe.

POSSIBILITIES FOR THE END OF THE UNIVERSE:

Scenario		Description
Heat Death	As expansion continues, the universe becomes larger, colder, and more dilute; in time, all structures eventually decompose to subatomic particles and photons.	In the case of indefinitely continuing metric expansion of space, the energy density in the universe will decrease until, after an estimated time of 10^{1000} years, it reaches thermodynamic equilibrium and no more structure will be possible. This will happen only after an extremely long time because first, some (less than 0.1%)[82] matter will collapse into black holes, which will then evaporate extremely slowly via Hawking radiation. The universe in this scenario will cease to be able to support life much earlier than this, after some 10^{14} years or so, when star formation ceases.[83], §IID. In some Grand Unified Theories, proton decay after at least 10^{34} years will convert the remaining interstellar gas and stellar remnants into leptons (such as positrons and

		electrons) and photons. Some positrons and electrons will then recombine into photons.[83], §IV, §VF. In this case, the universe has reached a high-entropy state consisting of a bath of particles and low-energy radiation. It is not known however whether it eventually achieves thermodynamic equilibrium.[83], §VIB, VID. The hypothesis of a universal heat death stems from the 1850s ideas of William Thomson (Lord Kelvin), who extrapolated the classical theory of heat and irreversibility (as embodied in the first two laws of thermodynamics) to the universe as a whole.[84]
Big Rip	Expansion of space accelerates and at some point becomes so extreme that even subatomic particles and the fabric of spacetime are pulled apart and unable to exist.	For any value of the dark energy content of the universe where the negative pressure ratio is less than -1, the expansion rate of the universe will continue to increase without limit. Gravitationally bound systems, such as clusters of galaxies, galaxies, and ultimately the Solar System will be torn apart. Eventually the expansion will be so rapid as to overcome the electromagnetic forces holding molecules and atoms together. Even atomic nuclei will be torn apart. Finally, forces and interactions even on the Planck scale—the smallest size for which the notion of "space" currently has a meaning—will no longer be able to occur as the fabric of spacetime itself is pulled apart and the universe as we know it will end in an unusual kind of singularity.
Big Crunch	Expansion eventually slows and halts, then reverses as all matter accelerates towards its common centre. Currently considered to be likely incorrect.	In the opposite of the "Big Rip" scenario, the metric expansion of space would at some point be reversed and the universe would contract towards a hot, dense state. This is a required element of oscillatory universe scenarios, such as the cyclic model, although a Big Crunch does not necessarily imply an oscillatory universe. Current observations suggest that this model of the universe is unlikely to be correct, and the expansion will continue or even accelerate.
Vacuum instability	Collapse of the quantum fields that underpin all forces, particles and structures, to a different form.	Cosmology traditionally has assumed a stable or at least metastable universe, but the possibility of a false vacuum in quantum field theory implies that the universe at any point in spacetime might spontaneously collapse into a lower-energy state (see Bubble nucleation), a more stable or "true vacuum", which would then expand outward from that point with the speed of light.[85][86][87][88][89] The effect would be that the quantum fields that underpin all forces, particles and structures, would undergo a transition to a more stable form. New forces and particles would replace the present ones we know of, with the side effect that all current particles, forces and structures would be destroyed and subsequently (if able) reform into different particles, forces and structures.