

Evolution of the universe

Time zero:

The big bang.

All matter and energy are concentrated at a single point in space.



All four forces are unified.

(gravitational, electromagnetic, strong nuclear and weak nuclear)

Expansion is occurring at a rapid rate.



Gravitational force becomes prominent.

Quarks and photons appear



The strong nuclear force becomes prominent.

Photons form leptons.

There is more matter present than antimatter.



The weak nuclear force and electromagnetic force become prominent.

There is an increasing amount of matter.

Antimatter completely disappears (at least from our galaxy)



Helium and lithium form.

Matter is in the form of plasma.



Atoms begin to form.

Photons travel freely.

Cosmic background radiation is formed.



Density fluctuations result in the first structure in the universe.



Further structures form.

Heavy elements form.

Present time.