

# Examining the Cosmos

## *The Six Days of Genesis*

Day Number	Start of Day (Years B.P.*)	End of Day (Years B.P.*)	Bible's Description	Scientific Description
One	15.75 billion	7.75 billion	The creation of the universe; light separates from darkness. (Gen 1:1-5)	The big bang marks the creation of the universe; light literally breaks free as electrons bond to atomic nuclei; galaxies start to form.
Two	7.75 billion	3.75 billion	The heavenly firmament forms. (Gen 1:6-8)	Disk of the Milky Way forms; Our Sun, a main sequence star, forms.
Three	3.75 billion	1.75 billion	Ocean and dry land appear; the first life, plants, appear (Gen 1:9-13).	The Earth has cooled and liquid water appears 3.8 billion years ago followed almost immediately by the first forms of life; bacteria and photosynthetic algae.
Four	1.75 billion	750 million	Sun, Moon, and stars become visible in the heavens (Gen 1:1-14)	Earth's atmosphere becomes transparent; photosynthesis produces an oxygen-rich atmosphere.
Five	750 million	250 million	First animal life swarms abundantly in waters; followed by reptiles and winged animals (Gen 1:20-23).	First multicellula animals; waters swarm with animal life having the basic body plans of all future animals; winged insects appear.
Six	250 million	6 thousand (+/-)	Land animals; mammals; humankind (Gen 1:24-31)	Massive extinction destroys over 90% of life. Land is re-populated with hominids and then humans

\*Before Present (BP) years are a time scale used in archaeology, geology, and other scientific disciplines to specify when events in the past occurred. Because the "present" time changes, standard practice is to use 1950 as the arbitrary origin of the age scale. For example, 1500 BP means 1500 years before 1950, that is, in the year 450.

# Solar System Timeline

(Given in terms of years ago; 0 = today)

- 4.6 billion years: Solar System forms.
- 3,9 billion years: Heavy bombardment of Earth by planetesimals subsides.
- 3.8 billion years: Possible formation of primitive life (definitely by 3.5 billion years).
- 2 billion years: Free oxygen begins to accumulate in atmosphere, due to photosynthesis.
- 600 million years: Present atmosphere essentially complete. Multicellular life flourishes.
- 350 million years: *“Cambrian explosion” — formation of complex, hard-bodied animals.*
- 240 million years: Mesozoic Era earliest dinosaurs appear.
- 65 million years: *Extinction of the dinosaurs, along **with 2/3 of all living** species.*
- 3.5 million years: *The first hominids appear.*
- 350 thousand years: *Early **homo sapiens** appear.*
- 3 thousand years: Beginning of Iron Age.
- 250 years: Industrial Revolution.
- 100 years: Radio communication.