

Janet Williamson's Great Story Beads

shown at http://thegreatstory.org/great_story_beads.html



Top string of 13 beads in 1 billion year increments: from the "big bang" at about 13(.7) BYA to the development of pseudopods and predation at about 1 BYA - still unicellular. (Multicellular life didn't develop until about.)

The second string of 50 beads in 100 million year increments beginning from the birth of our Sun: from the sun igniting at 50 HMYA (5 BYA) to 1 HMYA. The dinosaur is ~2HMYA. The "furry lil' mammal" at 1 HMYA doesn't show very well.

Details follow. Note: I have two more strings (in 10 MYA and 1MYA increments) — down to humans "controlling" fire.

String 1: each bead 1,000,000,000 years

(BYA = Billion Years Ago)

13(.7) BYA The Big Bang, Great Radiance, Primordial Flaring Forth. H, He formed.
(Swarovski crystal group).

12 BYA Proto galactic clouds, galaxies form (crystal like bead).

11 BYA Dense spheres of gas at high pressure - nuclear fusion begins, birth of stars (black sphere).

10 BYA Massive Red Giant stars form the complex elements – Li to Au etc.
Supernova (explosion of stars) disperse those elements throughout the galaxies (red

spiral).

9 BYA Carbon (black stone). (- not really an accurate chronology, but the heavier elements were formed during this time)

8 BYA Iron (hematite Fe₂O₃ sphere). " "

7 BYA Copper (copper ball). " "

6 BYA Gold ("gold" ball). " "

5 BYA A shockwave from nearby supernova, energizes the enriched gas cloud that will become the solar system. Our sun ignites. (gold sparkly ball).

4 BYA Earth forms, huge impact ejects the moon, bombardment ends, first rain falls, oceans form (blue green ball).

3 BYA First life evolves, water-based photosynthesis begins, prokaryotes (no nucleus, mitochondria etc)
O₂ excess, ozone shield develops, N fixation, GAIA cycle in place (ocean like bead).

2 BYA Eukaryotes – more complicated single cells (nucleated, mitochondrial, plastid containing) evolve (cell like bead).

1 BYA Predation develops (pseudopods surround and enzymes dissolve prey). Meiotic sex (bead with "tentacles").

String 2: each bead 100,000,000 years

(HMYA = Hundred Million Years Ago)

50 HMYA Shockwave from nearby supernova energizes the enriched gas cloud that will become

the solar system. Our sun ignites. (gold sparkly ball). (5BYA)
49-48 HMYA (2 gold).

47 HMYA Planets form (layered sphere).

46 HMYA Earth forms (blue sparkly sphere).

45 HMYA Huge meteor impacts earth, ejects the moon (small tan sphere).

- 44-42 HMYA Meteors bombard the earth (three spheres decreasing sizes).
- 41 HMYA Meteor bombardments cease. First rain falls (blue & white bead).
- 40 HMYA Oceans fill (dark blue bead).
- 39 HMYA (1 blue).
- 38 HMYA First life evolves (Archaea, a heat loving form of bacteria) (ocean like bead).
- 37-33 HMYA Life continues to develop (5 blue).
- 32 HMYA Water based photosynthesis begins in blue-green cyanobacteria. Water + energy in sunlight = hydrogen and oxygen (tan green orange stone).
- 31 HMYA Biomass grows (swirly gray & black stone).
- 30 HMYA Nitrogen fixation (small clear sphere).
- 29 HMYA Oxygen crisis, huge extinction, surviving life evolves to respiration that uses oxygen, ozone shield forms (larger clear sphere).
- 28 HMYA GAIA mechanism in place. Life mediates links in biochemical cycles of C, O and N, maintaining a crucial balance (tan, blue streaked stone).
- 27-21 HMYA life proliferates (7 blue).
- 20 HMYA Eukaryotes develop (cells containing mitochondria, plastids, nuclei) (cell like bead).
- 19-16 HMYA More complex life evolves (4 blue).
- 15 HMYA Meiotic sex (precursor to egg/sperm reproduction) ("dividing" bead).
- 14-11 HMYA More complexity of life (4 blue).
- 10 HMYA Predation develops (pseudopods surround prey and enzymes dissolve it) (bead with "tentacles").
- 9-7 HMYA Still more complexity (2 blue).
- 6 HMYA Multicellular life develops (dividing cells stay joined, cellular specialization develops) (bumpy seed).
- 5 HMYA Sight evolves (it will be invented a dozen times in different lineages of life) (white, blue "eye" bead). (Cambrian 540-500 MYA)
- (Ordovician 500-440 MYA)
- 4 HMYA First land plants (a symbiotic merger of a green alga and aquatic fungus) (green white stone) (Silurian 440-410 MYA)
- (Devonian)
- 410-360 MYA Carboniferous 360-290 MYA)

3 HMYA Pangaea forms, a single super continent (black & blue disk).
(Permian 290-245 MYA)

(Triassic 245-210 MYA)

2 HMYA Dinosaurs, ancient conifers, first birds (dinosaur).
(Jurassic 210-145 MYA)

1 HMYA Early mammals, flowering plants, dinosaur extinction, Pangaea break up encourages vast biodiversity (small white mammal). (Cretaceous extinction 0.65 HMYA = 65 MYA).
(Cretaceous 145-65 MYA)