

UNIVERSE STORY NECKLACE FOR CHILDREN

By Paula Hendrick, 2001

Children can easily make a Universe Story Necklace with **memory wire**. The wire, sold in bead stores, comes in loops sized for either necklaces or bracelets. Cut to the desired length, leaving an inch of overlap on each end. The beads slip onto the wire easily. To finish, just bend the wire at each end back toward the first bead. (Children may need help with this.) The ends are not joined, because the wire remembers to hold the necklace shape. You'll need wire cutters and pliers.

Children may want to add a special bead for their **birthday**.

For a file of this timeline, or to give feedback or share ideas, contact me at paulahendrick@hotmail.com.

On the next page is a one-page suggested TIMELINE.

TIMELINE

- 13 billion** years ago In a great flash, the Universe flares forth into being. We call this the **Big Bang**, or the **Great Radiance**. All the energy that will ever exist erupts from a point smaller than a grain of sand. Space-time itself unfurls and expands.
- 11 bya** One hundred billion **galaxies** take shape, including our Milky Way, each with tens of billions of **stars**.
- 4.6 bya** Our **Sun** ignites within a swirl of gas and particles from a supernova explosion.
- 4.5 bya** The swirling particles form planets, asteroids and comets; **Earth** is born.
- 4 bya** As Earth cools, **rain** falls, and oceans form.
- 3.9 bya** Earth comes to life as the **first cells** emerge, deep in the ocean.
- 3.6 bya** Blue-green bacteria capture the energy of sunlight with **photosynthesis**, which releases oxygen. Over time oxygen makes the sky and sea turn blue, and microscopic life flourishes in all waters of the planet.
- 540 mya** The first animals emerge. Life transforms minerals to make **shells** for protection.
- 400 mya** **Fishes** with jaws appear.
- 200 mya** **Dinosaurs** explore the limits of great size and speed, and also care for their young. Archeopteryx, the first birds with feathers and teeth, take flight.
- 100 mya** **Flowers and insects** coevolve in a dance of pollination.
- 65 mya** A huge **asteroid** collides with Earth in the Gulf of Mexico. North America erupts in flames. Earth grows cold. Dinosaurs go extinct.
- 40 mya** **Mammals**, whose young learn by playing, thrive. Ancestors of the whales return to the sea.
- 100,000 years ago** **Humans** emerge on the plains of Africa; Earth begins to speak.
- 40,000 ya** People begin to create **cave paintings**.
- 33 ya** Astronauts stand on the moon and watch the **Earthrise**; Earth watches herself from space.
- Present** Using the **Hubble Space Telescope**, we look into deep space and back toward the beginning of time. We watch as our Great Story unfolds.