For the Love of Stars

Once there was a little girl named Cecilia who fell in love with the universe. She felt her heart leap with joy every time she learned something new about the wonders of the far-off sky. Cecilia would grow up to be an astronomer, a scientist who studies the stars. Throughout her life, she observed the night sky, asking: What are stars made of? How are they born? Do they die? And how do we know? Throughout her life, her heart sang with each discovery, each bit of new understanding.

When Cecilia was a small child in England, still being pushed in a pram, which is an old-fashioned stroller, she saw a meteorite blaze across the sky. Her mother taught her a rhyme to remember what she had seen:

As we were walking home that night
We saw a shining meteorite.

From that moment, Cecilia knew she would grow up to be a student of the stars—an astronomer. She learned the names of Orion, the Big Dipper, all the constellations. She had a natural ability to notice details. By age 12, she could measure things and do math problems very precisely.

At Cecilia’s school, the teachers had an interesting way of increasing students’ powers of observation. Once a week, students had to find with their eyes (not touching) three little brass tacks scattered somewhere in the school garden. For Cecilia, always a keen observer, this education strengthened her resolve to be a scientist.

When Cecilia was a teenager, however, few adults would help a young woman become a scientist. Persistent, she got people to teach her science at school. In her family’s home library, she found two lonely science books to study: one about plants and the other containing Sir Isaac Newton’s observations about planets and gravity.

Cecilia learned the chemical elements that make up the world. She practiced identifying all kinds of plants. In a laboratory, which she called her chapel, she conducted “a little worship service of her own,” in awe before the magnificence of the natural world.

In 1919, Cecilia entered college to study botany (the study of plants was an acceptable course for a woman in those days). But continued on next page
she also studied physics, which in those days included astronomy. Here she found “pure delight.” When Cecilia learned that all motion is relative, she did not sleep for three nights. Leaving botany behind, she persuaded the college to allow her to choose physics.

After finishing her degree, Cecilia Payne came to the United States to study as an astronomer at Harvard University. She spent two years investigating what stars are made of, and concluded that most stars are primarily hydrogen. Today, we know this is true, but in 1925, no one believed her. Nonetheless, Cecilia presented her findings and became the first person—ever—to be awarded a Ph.D. in astronomy.

When she was 34, Cecilia arranged for the rescue of Russian astronomer Sergei Gaposchkin, who had been exiled from his own country. She later married him. They researched together and raised three children, who went to Sunday School at First Parish in Lexington, Massachusetts, a Unitarian Universalist church.

Cecilia had many struggles as an astronomer because she was a woman. Not until 1956—after 23 years of working—was she named a professor, the first woman to become a full professor at Harvard. Near the end of her life, Cecilia wrote that while other women were not allowed to be “in direct touch with the fountain-head, whether you call it God or the Universe,” she had been—always. Her love for the wonder of the universe lasted, and guided, her entire life.

Adapted from Stories in Faith by Gail Forsyth-Vail, a Tapestry of Faith Toolkit book (Boston: UUA, 2007).

**For the Love of Stars, continued**

**EXPLORE TOGETHER**

Like the stars above us, the interconnected web of all life here on Earth can inspire awe. Stop, look, and wonder at the eco-balance in and around your community. Venture online, to a library, and outdoors to identify wildlife, plants, and their interconnections.

**Ecological “Rock, Paper, Scissors”**

Play an ecological balance version of the game “rock, paper, scissors” using natural food chain relationships. For example: Frogs eat mosquitoes, mosquitoes bite humans, and humans eat frogs. Make up a hand gesture for each creature you include. Add multiple plants and animals, and think about the ways they are interdependent.

**Full Moon Walk**

Go for a night hike. Walk quietly. Listen for the night sounds. When you return home, have each person light a candle and name something they noticed or appreciated about nature on the hike. Close the ritual with mulled cider to celebrate the wonder of apples in the fall and the wonder of being together.

**Get Outside**

Find out about local nature or ecology activities in your area. Learning or volunteer work can give outdoor time a focus, for all ages, and lead you into moments of peace, wonder, and awe.

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**Create a Zen Garden**

...to grow in contemplation and invite moments of awe into your home.

- Each garden needs a small, low-sided box or tray. A shoebox or gift box will do.
- Fill the box with about an inch of play sand. Provide a fork for “raking.”
- Invite everyone to gather small items which are special to them to place in their Zen garden. You might take an outdoor walk together to collect some.
- Use forks to rake and re-rake your sand in any pattern you like.

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*“When one tugs on a single thing in nature, [one] finds it attached to the rest of the world.”* —John Muir
Arrange items in your Zen garden and raking the sand around them is a kind of meditation, a way of getting quiet and focused.

A Zen garden should be simple. Do not crowd items in your garden. Leave some space just for the sand.

Display your Zen gardens where you can revisit them and rearrange the items and sand for another contemplative experience.
Parent Reflection

A Private History of Awe
Excerpted from Workshop 4 in the adult Tapestry of Faith curriculum, Spirit of Life.

In Scott Russell Sanders’s book, *A Private History of Awe*, he remembers a spring day when he was a young boy, old enough to run around and small enough to be carried in his father’s arms. The wind was booming; lightning flashed everywhere as a heavy rain fell. His father carried him out onto the porch, held him against his chest, and hummed as the thunder rumbled. They looked out at the trees and the huge oak, which was the tallest thing the child knew. The oak swayed in the storm. Suddenly a flash and boom split the air. Everything became a white glare. “Sweet Jesus,” his father cried out, grabbing him and pulling him close. Lightning had struck the oak, and it snapped like a stick. Its top shattered onto the ground and a charred streak ran down the trunk.

One moment the great tree was there as solid as the father, bigger than anything Scott knew, and the next moment it was gone.

Fifty years later that day still haunts Scott...the day when the power, energy, and wildness that surges through everything was revealed in a flash. Scott writes, “The sky cracked open to reveal a world where even grownups were tiny and houses were toys and wood and skin and everything was made of light.”

Sometimes we witness an event in nature, like a lightning strike or the flight of a lone, wild bird, which stays with us long afterward.

Dedicate a few quiet moments to recalling one of your own experiences of nature. Sit comfortably, with paper and markers at hand. Remember how you felt, and consider how the experience affected you. As you write or draw about it, think about how you can share it with your child.

Find Out More

- The original Zen gardens, made by Japanese Buddhists, invited passers-by to enter and take quiet time to meditate.
- From The Labyrinth Society (www.labyrinthsoociety.org) learn the ancient history of human contemplation in patterned pathways that, unlike mazes, gently take you into the center and send you back to your starting point. The Tapestry of Faith K-1 program, Creating Home, introduces children to the labyrinth.

www.uua.org/tapestryoffaith