

Our Caring Universe

How to blend Earth Awareness and Peace Education

Part One: Ecozoic Education Methods

Part Two: Activities to Accompany the CD RECORDING:

HEART OF THE WORLD

by Rev. Sarah Pirtle, MEd.

The Discovery Center for
Peacebuilding

*“The reason we are able to be creative,
to be patient, to be responsive, to be
compassionate,
the reason we are able to think
about the needs of a whole community,
is because we are Earth
and this is how Earth is.
Through our caring we express the fundamental
nature of this caring Universe.”*

-- Sarah Pirtle

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In Appreciation -- The inspiration for this work comes from the teaching of Miriam MacGillis and the staff of Genesis Farm, and the work of Thomas Berry and Brian Swimme.

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Recording: *Heart of the World* is produced
by A Gentle Wind, Albany NY

Sarah received the Magic Penny Lifetime Achievement Award for educational children's music.

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SUMMARY OF WHAT THIS BOOK CONTAINS

ECOZOIC EDUCATION:

How did bacteria invent conflict resolution?

What are our nine senses?

How can we have a conversation with the Universe?

“Inside us the Earth creates peace discoveries.”

This book offers new activities created by a national expert in teaching social skills in the expressive arts. In this, her fifth book, she provides a broader understanding of peace education -- how we can help young people know that we are part of an evolving caring Universe.

HEART OF THE WORLD: *Ecozoic music for all ages* **WINNER OF THREE NATIONAL AWARDS**

“An extraordinary listening experience.”

-- School Library Journal

Winner of the Parents' Choice Silver Honor Award

These songs sing out --

We are interconnected partners who grow together inside a caring Universe.

Find lyrics about quarks, dolphins, dancing DNA and the heartbeat of the world are embedded in the New Cosmology. With humor, joy, and insight this music whispers that the creative love powering the Universe is within each of us and is ours to express.

We are the earth walking.

We are water talking.

Music can help us know this.

“If you want to hear some of the best songs out

there today for children, listen to Sarah Pirtle.”

-- Pete Seeger

PART ONE: ECOZOIC EDUCATION METHODS

Ecozoic Education -- Living the Questions

Peace Discoveries: Waking Up Inside the Tree of Life

Inside us, the earth is growing peace. We are invited today into a profound time of world-wide change and deep transformation.

The ancient archetype of the Tree of Life reminds us of our fundamental connection. In cultures around the globe, people intuited a World Tree in which all forms of life belong. As we share our peace discoveries, we water this Tree of Life. Its fragrance and bounty stretch forward for generations to come. Moving through anguish and fear for the future, we remember we are interconnected and find the power to keep contributing to the sacred center that holds us all.

We are awakening and coordinating together as a human species committed together to evolving peace. Seven hundred million years ago cells learned how to coordinate around a common impulse, a common purpose. Single cells combined and became multicellular. Today we are involved in a similar evolutionary leap.

We are living on a planet engaged in a world-wide conversation on world peace. An emerging consensus is saying with increasing clarity: we choose peacebuilding, not war making; we envision and commit to a world organized for peace. We have the potential to coordinate together in our own multicellularity. The force that within a spring flower powers a push so strong that the shoots move up between stones is the same tenacious force expressing uniquely within us, defying obstacles and setbacks to digest the core coherent intelligence of the sun.

There are peace discoveries that only humans can make. May we stretch forward to make them. There are ways that humans can discover and express love that increases the love in the Universe. What we do day by day matters more than we can know.

* * * *

My lifelong focus on peace education was transformed through studying

with the staff of Genesis Farm. Thanks to Miriam MacGillis, Jean Edwards, Larry Edwards, and Marya Grothwohl of Genesis Farm, and thanks to the breakthroughs of Thomas Berry and Brian Swimme that pour out in their books and videos. Thanks also to Jill and Donald Person of A Gentle Wind for their continuing support over the past eighteen years as we created four recordings together, and to Chris Marano, director of the Clear Path Herbal Apprenticeship Program for inspiration.

Here are activities and songs developed in a search for ways to communicate to young people that we are active co-creators inside a caring Universe and that each of us can make peace discoveries every day. The goals of this book and the Heart of the World recording are:

1. To catalyze awareness of our participation in a caring Universe.
2. To develop learning methods that bring the context of the Universe into education.
3. To encourage dialogue on the implications of the Universe Story in educating the next generations and foster networking among people teaching the Universe Story.

Deep nourishment comes for me from talking with trees, walking through forests, bending to touch plants and sense their being. Songs arise in these moments. I hope these new songs and new thoughts will pass some of this fire and some of this joy onto you.

Warm wishes,
Sarah Pirtle

GUIDING QUESTIONS:

How does it change us to know that we aren't just *on* the Earth, we *are* the Earth?

What does it mean to celebrate each other in our unfolding?

What new multicellularity are we invited into?

How do you hear the voice of the Universe inside you?

How do you receive the Universe arising to help you?
Ways to Develop Ecozoic Understanding

What is the Ecozoic Era?

Thomas Berry created the term “Ecozoic Era” to help us face that we are living in a time when one single species, humans, have actually brought about the end of a geological period, the 67 million years of the Cenozoic Era. He writes, “This new period in history might be called the Ecozoic Era to indicate the order of magnitude of the change that is taking place and of the expanded role of the human.”

Miriam MacGillis, director of Genesis Farm in New Jersey, adds, “Our present moment is similar to when Galileo asserted that Earth revolves around the sun.” It is perhaps even more challenging to live from the knowledge that we are not just on the earth looking into the universe but we ourselves are the earth and we ourselves are the universe. By reorienting ourselves to the newly available scientific story of the Universe and by centering our actions around it as a new Cosmological Story, we have an immense opportunity to gain the psychic energy required to participate in the monumental changes which are necessary if the human story is to continue.

Herman Greene, director of the Center for Ecozoic Studies, says:

The Ecozoic Era -- a time when human live in a mutually enhancing relationship with the larger community of life systems... The Center for Ecozoic Studies is dedicated to the principle that we are embedded in a meaningful universe that is irreversibly and continuously evolving. In such a universe, the Ecozoic Era is a process concept ... not something to be arrived at, but something ever to be created...It crucially involves more than just and cooperative relationships among humans, as well as transformed relationships of humans with the larger natural world.

Entering the Ecozoic is entering the forcefield of the Universe. It is restoring oneself to its dynamics of caring for the whole, caring for each part, and taking self responsibility.

Moving into the Ecozoic is moving into a way of living that has been part of humans throughout history; it is at once timeless and modern. It's not a shift that begins from an external force out there, for it includes internal and community transformation. By seeing it, by naming it, by living there, the Ecozoic Era has begun. This is an invitation that comes from the Universe.

Berry and Swimme put forward, "The immediate goal ... is not simply to diminish the devastation of the planet that is taking place at present. It is rather to alter the mode of consciousness that is responsible for such deadly activities." How do we nurture and develop such consciousness within the next generations?

The Vision of Ecozoic Education

What does education of young people look like within the Ecozoic Era? Educator Jean Edwards, on staff of Genesis Farm for over fifteen years, articulates, "Since education is designed to pass on the values of our culture, what values do we want to pass on?"

These are guiding questions specifically for educators:

- * What happens when we awaken to the responsibility that we are Earth teaching ourselves?
- * How do we shift from studying "the environment" out there, to learning how to live as one species within a community of species?
- * How do we help young people experience themselves as part of the Universe Story and awaken to their own role within it?

Jean Edwards summarizes Berry's insights and their implications for education: "The education of human beings begins with learning the Universe Story by living the meanings. It is through direct contact with the deep mysteries of natural places that we attain human growth." She also emphasizes that the Universe Story is already inside young children. It's inside all of us, waiting to be known. The Universe invites us to stretch from new senses and sense the possibilities that happen when we return to the common dance.

I believe that we need to help students not only be inside the narrative part of the story and learn about our common epic, but also help them be inside the dynamics.

In their book, *The Universe Story* (1992, HarperSan Francisco), Thomas Berry and Brian Swimme express the dynamics poetically to help us see more deeply: “Given Mozart’s symphonies what is the nature of the dynamics of the Universe that could have led to such structure? Given the care with which a mother lark will nurture and protect her young, what is the Universe made of?” (p. 23)

Here are other examples. What is said about the depth of the Universe when a new-born child awakens a love force of parents that they have never experienced before? What does the courage of a five-year-old who crosses a threshold and learns how to find words instead of hitting say about the nature of the Universe? Love, caring, social relationships and skills are seen in a whole new light when we look at them through the lenses of the New Cosmology.

Educators working on conflict resolution, respect for diversity, anti-bias awareness, cooperative learning and ecological awareness are bringing young people into universal dynamics. When we work in our classrooms developing problem-solving skills to replace bullying and domination with engagement, we are saying the language of the Universe can be spoken here. What excites me is to make the connection of peace education and the implications of the New Cosmology ever more vivid, for this is a time of evolution in relationships. The “us” we are learning about is not only the “us” of human and human, but has to be also the “us” of human and other-than-human life forms. We move toward an expanded peace education that refers to the whole web of life.

Here are five ways we have been experimenting with fostering Ecozoic understanding in our work at the Discovery Center for Peacebuilding.

1. Talk directly about the three fundamentals of the Universe.
2. Teach conflict resolution and other social skills in the context of moving with the dynamics of the Universe.
3. Open up more senses by creating ways to share wonder and inviting young people to notice synchronicity.
4. Use expressive arts to experience the Universe Story.
5. Talk to the Universe.

ONE. Talk directly about the three fundamentals of the Universe.

In *The Universe Story*, Brian Swimme and Thomas Berry describe **three fundamental principles** or **central ordering tendencies** of the Universe.

- * Mutuality, communion. Everything is connected. There is an “inescapable togetherness of things.”
- * Differentiation, diversity. Everything is new and different.
- * Interiority, self-manifestation. Everything has its own interior reality.

These are palpable, not abstractions. These are beacons and familiar forces. When teaching peace education, I start by describing these three fundamentals so that whatever community we are part of can consciously rest inside of them.

In fact, we can think of “peace” as the state where the intersection of these three universal fundamentals is being practiced. We are discovering peace as we are communing, supporting diversity, and treating each other as sacred subjects.

There is something about putting these dynamics into new words to fit the listeners, about paraphrasing them, that helps them to become more and more incorporated into daily life. I’ll offer examples of ways I’ve articulated these dynamics so that you can react to them, revise, and craft them to fit for you.

For instance, when I describe “interiority” for elementary ages, I say that it means that we all grow and have our own power to create. We have an inner voice, an inner reality that we can hear. We have the means to guide ourselves and take responsibility for what we do.

At a peace camp for 7 - 13 year olds called Journey Camp in Deerfield, Massachusetts, we use the fundamentals to guide us in setting up the community. We tell the children, “We want this camp to be a place where we can feel that we are all connected. We’ll encourage each other to be ourselves. That means we will all be different. Also, we want this to be a place where we’re supported to grow and change as we explore how to be ourselves and express the gifts that we have.”

Here is the first paragraph of the letter that I send to parents:

We create our community around three dynamics that scientists say are universal foundations and basic ways that the earth keeps everything in rhythm.

Everything is connected. We learn to think about ourselves as a community and notice everyone's needs.

Everything is different. We encourage each person to be their own unique self and support difference.

Everything has its own center. We grow, create, and learn to be responsible for ourselves.

One way to celebrate these three fundamentals is to place a basket of shells, nuts, and stones and ask each person to pick one and place it on a cloth to stand for them during the day, arranging them in a connected design. Each child has the option of saying why they chose what they did.

Then, using call and response, describe each dynamic and invite children to repeat the words and to explore their meaning. These are words I've used with groups of children.

Introduction: "Here are three forces that happen throughout the whole Universe, and we're encouraging them here in our community. I invite you to notice them with me."

* **"We care what happens to each other."**

I give a specific example of something I've noticed during the last day of how a person thought about another or how a person was affected by the actions of someone else.

For instance, "When Kisha was describing how she looked for her lost dog, I saw your eyes, Ken. I could tell you were connecting with how she felt."

* **"We are all different."**

I give a way to explore a dimension of diversity. For instance, "Today let's turn to a partner and explore the

different lines on our hands. Can you find the shape of a letter in the lines of your palm?"

* **"We each grow and change like an acorn turning into an oak, like a seed becoming a flower."**

I invite them to think of a change they've noticed.

For instance, Malcolm says, "I was afraid of lightning and yesterday I listened to it and didn't feel so afraid."

Naming these core dynamics sets a tone that radiates through the day.

TWO. Teach conflict resolution and other social skills in the context of moving with the dynamics of the Universe.

The Universe is spoken here. That's what can be said of learning environments where we support each other to unfold and grow in our own unique ways. Just as the origin of the Universe is described as flaring forth, each of us flares forth when we express ourselves and activate the gifts that are part of our nature.

Berry and Swimme emphasize: *We are made of relationships. The first particles of matter which we call the quarks were fundamentally in relationship. At every point they, then and now, connected with two or three others. After 300,000 years of dancing together the quarks gave birth to the atoms.*

Yet it's possible as a human to be in the Universe but not be with people who "speak the language of the Universe." What a wonder that people can live on the Earth but be held inside a mind-set that is the opposite of the basic dynamics of the Universe. Our human society has been able to construct social settings in which other dynamics operate: conformity, isolation, domination, fear, violence. It's possible to not feel held and included, to have no door that leads back to engagement and regard.

From this vantage point, with grief and astonishment we look at the number of wars on the planet, the number of weapons on the planet, the number of training centers for violence such as the School of the Americas that trains for torture in Central America, and the number of homes where there is intimate violence. Pesticides, petrochemicals, poisoning of rivers -- the organizing principles of the Universe are turned upside down in an epidemic of violence and

ecocide. The basic biologic imperative to care for the ongoing generativity of life has been interrupted on a massive scale. Arising from this captivity is a key feature of the shift to the Ecozoic.

How do you hear the Earth crying? Each of us can tell each other story after story. I walked by a boy in my neighborhood one day and saw him striking a tree with a board. I heard him say to his friend, "I hate Mother Nature."

There is a difference between the "violence" of a star exploding and the violence of warfare and mistreatment. As the star goes Super Nova, it is still in its communal context. It is transforming in rhythm with the whole, on behalf of the whole.

Imagine a cell within a body. It acts in rhythm with the whole. It sends messages about what it needs, and also listens to a larger coordination. Now imagine a cell out of coordination, a cell captive by a system -- like cancer -- that is out of communion. In healing from ever-deepening distortion and violence, we restore ourselves to the larger social body, we heal from the cancer of violence, we move out of the orbit of incoherent social programming.

"Multicellularity enabled new subjects to appear in the Universe," writes Swimme and Berry. (p. 109). When we are in a loving cooperative group, we have created a new subject in the Universe. When we work in coordination with other humans, we form a multi-individual group that can do new things that the individuals alone could not do. We sense the feeling of "us" just as the first cells becoming multicellular first felt a new voice arising that came not from one individual cell but from the whole collection.

River Listening Activity: How to Lead a Talk It Out

What to keep in mind when working with disputants: Hold them in the three dynamics. Provide guidance in how to handle a problem, yet as much as possible, allow the solution to be theirs. Your role is to lead them through the four stages as guide, fostering connection.

The image of a River Listening is that of allowing all the parts of the river to have their voice and by doing this to discover the common river that holds everyone.

1. AGREE TO TALK: Bring them into the framework of talking it out.
 - a. Acknowledge feelings -- "I see you're upset."
Allow for cool-down time if needed.
 - b. Telegraph your confidence through calm body language.

- c. Maintain that talking together will help --
“Will you agree to talk it out?”
 - d. Gather everyone involved in the issue and make sure that the spot you’re talking in has privacy if important. If disputants want bystanders in on it, that’s okay.
 - e. Establish that everyone will be heard and each will talk without being interrupted.
2. WHAT’S THE PROBLEM? Help them sort out what is at issue.
- a. Give each person a chance to speak -- “What happened? What’s your side of the story? What’s the problem here?”
 - b. Avoid being detective or judge.
 - c. Reflect back what the key issues are -- help them focus on the problem.
 - d. Make sure they can talk without put-downs or interruption.
3. HOW CAN IT BE SOLVED?
- Help them brainstorm possible next steps.
- a. Help them think of many ways they could solve the problem.
 - b. It may be enough to have them respond to -- “What do you want next time?” This is especially true if what they need is mostly to hear each other and don’t need to take action now.
 - c. If a suggestion seems unrealistic, ask, “How would that work?”
 - d. Let this process be theirs -- you are coach or midwife.
4. MAKE A PLAN: Help them move toward positive action.
- a. Encourage them to look at the range of choices and pick one that will work for all disputants, a win/win solution.
 - b. Make sure the plan is clear to everyone.
 - c. Help them articulate what the first steps will be to implement it.

What to avoid: Judgment statements, blaming, excess heaviness, or forcing people to say they are sorry. Most important is, “I hear you.”

Summary: 1. Chill. 2. Listen. 3. Brainstorm. 4. Make a Plan.

THREE. Open up more senses by creating ways to share wonder and inviting young people to notice synchronicity.

In *Timeline*, March/April 2001, Joann Lundgren writes about what it means for young people to bond with the Earth. She says, "It is this kind of profound bonding, first with the family and then with the Earth, that ensures that the child by age fourteen will have established a foundation for compassionate intelligence -- an intelligence that has the well-being of all life as its guiding principle. It is our job as adults to ensure that our children develop that bond."

Matt Kolan of Hawley, Massachusetts likes to set up a wonder table where people bring bird feathers, special stones, and other parts of the earth that they have found. What he asks is that before setting things on the table, use an index card and create a question about it. Place it on the card with the question. He also supplies a host of books as resources.

Example: A child has found a feather and displays it with this question:, "Do you think this came from the bird's wing or body?"

In events called, "Earth Day, Every Day," we take intergenerational hikes where, although we are ready to answer questions about trees, plants, and tracks, it is wonder that leads us. Rather than having facts foremost to impart, we enter from joy.

"Look at this hole!" says a child. We respond by awakening the investigator in the child such as: "Let's feel what it would be like to make that hole. Who do you think would be able to create it? Where do you think the hole goes?"

Or, we're going on an herb walk and revel in feeling the texture of the leaves, the square stem of the plants in the mint family, the taste of lemon balm. Another approach is: "We're getting near a plant that is used to soothe people. Can you guess which one it is? What do you notice about it?" Or, "If you were to name it, what name would you give it?" Then, when the identifying name of wild lettuce is introduced, they've already begun a relationship with the plant.

As we share from the place of wonder, our senses open. On a winter day

when I was learning about tracking, I began to discover senses I'd never noticed or named before, and the following activity was born. We've led it two ways: it can be done indoors with a collection of acorns or other parts of nature, or on a walk where each person selects something they are drawn to.

"Our Nine Senses:" An Activity by Sarah Pirtle

Each person holds an acorn or other part of nature.

Ask: Please close your eyes and keep them closed.

1. Begin with your sense of touch. Let your fingers drink in information.
2. Now use your sense of smell to explore what you are holding.
3. Explore your ability to sense its age and its point of origin.
4. Explore sensing the story of the transformations it's been through.
5. Sense its communion with every other part of the Universe.
6. Sense how it is different from every other part of the Universe. Sense the fact that it is unique.
7. Explore your ability to sense that it is a subject within a communion of subjects. It has its own sovereignty, it's own dignity, it's own reality.
8. Explore your ability to bond with it.
9. Lastly, open your eyes and use your sense of sight. Greet it with soft eyes.

Notice synchronicity:

At Journey Camp, Matt Kolan discovered that children as young as seven could be introduced to the concept of synchronicity. He told a story of his own connection with the natural world, and from that point on the children, ages 7 - 11, kept noticing their own experiences. The more they noticed, the more opportunities kept arising.

A seven-year-old said, "My Mom and I were talking about chipmunks and just then a chipmunk ran across my foot!" And, "While you were telling us the tale of Rainbow Crow, two crows across the field were sitting there on a dead branch the whole time." Such observations helped them awaken to being inside nature together.

As Matt sat with a small group in the forest, he engaged them in expressing something beautiful they saw during the past year. To their surprise, over half the group had seen a bird hatch from an egg. The last two people mentioned seeing garter snakes. At that very point, to their shock and delight, a garter snake came into the circle, and he showed them how to pass it hand to hand

so that everyone could greet the snake.

FOUR. Use expressive arts to experience the Universe Story.

When I was telling the Universe Story to a group of 4-9 year olds at a conference for community schools, a key conversation occurred as the storytelling ended. The youngest person, the four-year-old, lingered. He wanted to keep talking about it, and he pressed me -- *But what was there before the Universe started?*

We talked it over and decided that probably it was a time when love was invisible. We concluded that love wanted to take the risk to become visible and so the Universe began.

I've been delighted how even a short description of part of the Universe Story can catalyze excitement. For instance, having lunch with children one day, some topic we were on led to a three minute description of our Grandmother Star going Super Nova. "There are 100 billion galaxies, and we are inside one of them called the Milky Way. Here's how the Earth was born. One of the stars, we can call it our Grandmother Star, was activated by an enormous force of energy called a 'star-making' arm." I went on to describe the transformations, gesturing with my hands.

"Let's act it out," responded Becky, age eight. She wanted to be inside the story and feel her friends moving with her. "What planet do you want to be, Franny?"

The second section of this book is devoted to examples of how songs can be used to explore Earth rhythms and transformations, and help enter imaginatively into understanding our part in the Universe. Jean Edwards and Genesis Farm have created and learned about many other methods educators have used: creating paper mache planets and having a parade, making prayer flags to honor parts of creation, doing puppet shows, using creative movement.

Here is an activity using story and creative dramatics to help us enter into the wonder of bacteria.

BACTERIA: Narrative and Role Play: by Sarah Pirtle

Key Resource: **From Lava to Life:** Book Two -- The Universe Tells Our Earth Story by Jennifer Morgan, illustrated by Dana Lynne Anderson (Dawn Publications, 2003)

What bacteria are like: One person narrates while others act it out.

1. For 2 million years, bacteria were the only form of life. But their story is not only a story of the past. Take a deep breath. You breathed in millions of bacteria. Cup your hands and imagine your hands are filled with dirt. Billions of bacteria would be there, and billions are inside each of us right now.

2. Ancient bacteria formed in hot sea vents. Stand up and imagine you are this bacteria, eating the hydrogen in the gas bubbles coming up from the cracks in the ocean floor. That's your fuel. Inside you floats your DNA, your genetic code guiding how you live. Wiggle and feel your DNA there. DNA is the book you're writing. It's a record of all the ways you've invented to consume, repair and eliminate.

These are your characteristics: You're hearty. You can survive the violent upheavals and extreme temperatures of early Earth. You're prolific. You divide every 20 minutes.

3. Stand shoulder to shoulder now and feel how we bacteria are spread out in different environments, different locations, from volcanoes to ice caps. We share a single energy currency -- ATP, adenosine triphosphate. When we break up molecules, we free the energy stored there in ATP molecules so that all life forms share the same energy.

To show that development, we'll clap hands and chant:

One energy, one life, pass that ATP.

4. Bacteria trade knowledge. We can think of them as the first world wide web, a single superorganism exchanging with each other. They can release bits of DNA for others to pick up, rubbing up against each other or dissolving a common opening to share DNA.

Let's act out this exchange. Invent a motion to show your way of eating hydrogen. Now let's circulate as we show the hand motion we invented. Try on the motion of the person you meet, then change your motions to incorporate a little of each, and pass on to a new person, a new bacterium, and exchange and be influenced by them.

Bacteria pass on their inventions to their family, their friends, and to the future.

5. Bacteria, stand with pride! You moved on land 2,600 mya, eating rock, preparing soil. You maintain the worldwide habitats by renewing and chemically balancing the atmosphere, seas, and soils.

A summary of the crises bacteria faced:

The 3 kinds of bacteria can be called

The bubblers, blue greens, and breathers.

5. The bubblers, the first kind of bacteria, had a food crisis. Think of them as oozers, a fermenters. (They're in swamps, gas bubbles, and yogurt today, breaking down ready-made food molecules.)

When the calmer earth became less chemically rich, their food source was depleted. They handled the crisis by learning to eat decayed bodies of bacteria for food and by interconnecting, the waste products of one becoming food for the other. Walk around, gesturing that you're casting off waste products into the "common soup," the space between us, and gobbling up waste products left by others.

6. Another solution to the food crisis involved eating the photons of light. Stretch your fingers, reach your palms up, and imagine you are the blue-greens, the cyanobacteria, learning to eat the sun. You have invented photosynthesis. This happened 3,700,000 years ago.

7. One of the skills the blue-greens developed was taking hydrogen out of a water molecule. Form into groups of five (or adapt with 4-6 members) and portray a H₂O molecule while two blue-greens pry hydrogen out to eat and release oxygen, which was a deadly poison to bacteria. As you role play this, use the center as the place the released oxygen goes.

8. This breakthrough led to a new crisis 2,800,000 years ago as oxygen levels rose. Let's portray this volatile quality of oxygen.

Role Play: More people take the oxygen role. Oxygen will chant: "I have a perpetual need for electrons." The rest of us are previously stable compounds from whom oxygen is taking these electrons. Some of us are bacteria whose fragile cell membranes are attacked by oxygen, and all the valuable DNA in our nerve center is burned. Oxygen killed almost all early life by 1,900,000.

But during this crisis a third type of bacteria, the breathers evolved, Show them travelling with ten times the energy of any other cell. Also, the ozone shield formed out of this crisis.

Ancient Cooperatives -- Symbiotic mergers: how bacteria invented win/win solutions:

Bacteria participated in the first conflict resolution!

For this part of the role play, choose whether you want to be a breather, a blue green, or a bubbler.

Watchers, the people not in the role play, can become the “Muses.” This means that you portray one of the three fundamentals: either rooting for communion, rooting for diversity, or rooting for interiority and self manifestation.

1. Breather meets Bubbler

Stage One: Fast motor-driven breathers drill into the bigger, slower bubblers and consume them.

Stage Two: Win/Win

Some breathers learn to stay without destroying their host. Breathers help hosts tolerate oxygenated environments. Bubblers give shelter and share ingested food. The additional ATP resulting from this combination helps build stronger cell walls.

This is how mitochondria evolved.

2. Bubbler meets Blue Green

Stage One: Light-tolerant bubblers engulf small green or blue greens and digest them.

Stage Two: Win/Win

The blue greens go on living inside the bubblers, making food.

This is how chloroplasts evolved.

3. Breathers meet Bubblers containing Blue greens

Stage One: Motorized breathers stick to the outside of bubblers and suck them as predators.

Stage Two: Win/Win

The fast breathers drive the bubblers containing blue greens to new food sources for shared benefit and are able to get to areas with more light.

As each encounter is portrayed, the “Muses” who are watching, respond as to whether the fundamental principal they are representing has been adhered to in the resulting symbiont.

In Stage One -- the “Muses” react with upset when interiority isn’t being respected. In Stage Two -- the Muses help to be a driving force encouraging a win/win solution.

FIVE. Talk to the Universe.

The Universe asks us, “Who are you?” and “How do you want to unfold and flare forth?” The Universe also asks, “What can I do for you?” and “What can we do together?” Ponder this as you take a walk, or as you lie in bed before sleep or just before awakening.

Through poetry, creative drama, drawing and movement, it is a joy to explore conversations with the Universe.

Here are activities created for adults that can be adapted for use in high schools. They were created for an adult workshop called:

“Hearing the Universe Story -- The Heart of the World Inside Us.”

Coming Back into Alignment:

Imagine and make vivid for yourself the kinds of interactions you want to be engaged in, the kind of human community you want to be part of. See this as being in alignment with our caring Universe, with our basic biologic imperative to cherish and promote life-giving activities.

Now see what is different from these intentions as a separate force field, a misaligned incoherent net that is out of kilter.

Declare who you are and what you want. Go forward, pierce through the field of energy that is out of alignment and reach through to the Universe that does care, the place where there is understanding, and support, affirmation. Join with the threads of a universal fabric.

Moving with the Energy of the Cosmos

Participants journal, then work in pairs discussing these questions.

1. Where is the leading edge of your becoming?
How are you called to unfold?
Try on the thought that this is the voice of the Universe leading you.
2. As you try out the feeling of going forward in this direction that calls

you, are there obstacles you perceive or concerns that rise up?

What messages or past experiences do you encounter that block your way? Write the message of one of these “crushers.”

3. Now craft its opposite.

Take the words of this “crusher” and turn them around.

This new statement is what is true.

Hold it now as your new foundation.

4. Believing this statement and feeling it holding you, how can you now move from your original intention? How can you unfold?

As you do this, feel the Universe arising to help you.

In what ways could you open to receive the support of the Universe arriving in a myriad of forms? What might you do -- today, tomorrow, this week -- from inside the place of being held in the arms of the Universe?

5. What examples of transformation in the Universe are allies for you in this co-created unfolding?

Examples: single cells becoming multi-cellular,
bacteria learning how to feed on the sun,
a super nova seeding the next generation of stars.

Evolution: As we change, we make a literal, specific leap of faith into new ways of steering ourselves, and the Universe is there, supporting us. This involves a return to what might be called the basic force field of the three fundamentals-- communion, differentiation, interiority. Living at this time in this culture, we have experienced social structures, relationships, and forces which are not aligned with the fundamentals of the Universe. If we see this as dense compacted energy that is incoherent and mis-aligned, we can reach through, and go beyond it, no longer captured by it, and reach to the fundamental source of the Cosmos.

As each individual makes breakthroughs, stepping out of the old force field, these discoveries ripple through and give support and a new example for the wider human community.

PART TWO: SONGS ON THE CD, HEART OF THE WORLD

***Songs about the Universe Story
and the flowering of life on Earth:***

“Education might well be defined as knowing the story of the Universe, of the planet Earth, of life systems, and of consciousness, all as a single story, and recognizing the human role in the story. The primary purpose of education should be to enable individual humans to fulfill their proper role in this larger pattern of meaning.”

-- Brian Swimme and Thomas Berry,
The Universe Story, p. 256.

1. The Quarks Song

Song 17

Lyrics:

- 1) The quarks, the quarks, the quarks. Can you believe how we work?
The quarks, the quarks, the quarks. Can you believe how we work?
Riddley riddley roton.
We make the neutrons and protons.
Riddley riddley ratter.
We start to build up the matter.

- 2) The quarks, the quarks we dance, until something big appears.
We dance and dance and dance for 300, 000 years.
Some quarks go up and some go down.
We are not all quarks of one feather.
With the help of the glue of the gluons,
see what happens when we come together.

- 3) We're hydro-hydrogen. And he-e-e-lium.
Hydro-hydrogen. And he-e-e-lium.
We've invented a wonderful pattern.
We've invented a wonderful pattern.
I know this may be hard to fathom.
But we just gave birth to the atom.
- 4) We atoms dance a storm, and now we are cosmic seeds.
We ripple into stars and build up the galaxies.
We're invented new places to travel.
We've invented new places all over.
We clump into clouds to make star dust.
And explode in a big Super Nova.
- 5) We're ox-oxy-gen and cal-al-al-alcium.
We're car-ar-arbon and so-o-o-odium.
We're invented new places to gallop.
We've invented new places to quiver.
Some of us dance upon Saturn.
Some of us dance in your liver.

The quarks, the quarks, the quarks.
Can you believe how we work?
The quarks, the quarks, the quarks.
Can you believe how we work!

Source: The first verse and the idea for the song were created by Ella Weitzman, Rachel Becker, and Sarah Brown-Anson with Sarah at Journey Camp in Deerfield, MA. On the video you can meet them dancing to this song. Sarah Pirtle completed the other verses to extend a picture of the quarks' journey. The tune is the traditional song, "La Raspa," commonly but erroneously called, "The Mexican Hat Dance."

Background of the song:

The song was written to give a picture of the development of our Universe from the first particles of matter. The verses convey science facts which have been checked for accuracy by Larry Edwards, formerly of the U.S. National Science Foundation, a staff member of Genesis Farm and on the faculty of the California Institute of Integral Studies.

Guides for using the song:

(1) Quarks is a German word for essence. Quarks are the smallest particles of matter in the Universe that formed when the Universe was first flaring forth. The fireball emerged into a quintillion particles which began the work of building up the Universe. Explore the wonder that

after 13 billion years of development the quarks have shaped themselves into humans who can now know and sing about their history.

(2) When the Universe began, quarks began relating and organizing themselves into a coherent system. In this we see that the Universe is characterized by self-assembling and self-organizing dynamics. Discuss the transformation from quarks to atoms. As the second verse explains, it took 300, 000 years for the stability of the atom to be created. Up until this point, light bombarded the elementary particles “as easily as a tornado carrying particles of dust.” (*A Walk Through Time*, p. 15).

(3) Here’s a way to get a sense of scale.

Relative Sizes by Christopher Gilbert

If a person = the size of a quark.

The distance from us to the Sun =

the distance for a quark to the nucleus of an atom.

The expanse of our Solar System can be compared relatively to
the whole expanse of an atom.

The Milky Way galaxy would then be equivalent to the size of a molecule.

The Universe would relatively be compared to the size of a compound.

The song talks about quarks dancing in our liver. Christopher Gilbert says that to a quark, our liver is a space so enormous that it would feel to the quark the way a billion universes would feel to us.

(4) A resource that is highly recommended is the picture book, *Born With a Bang*, by Jennifer Morgan illustrated by Dana Lynne Anderson (Dawn Publications, 2002). With beautiful illustrations and lively text it presents the history of the Universe as a letter written by the Universe to an Earthling. This song is meant to complement this book. For instance, verses four and five work in tandem with page 31 which says, “Your Mother Star ripped herself apart in a massive explosion -- a supernova. Tiny specks of carbon, oxygen, and calcium, and all the other new building blocks she made, blasted into space and cooled into stardust.”

(5) The study of quarks is more a story of relationships than of particles. Using a dance to explore the quarks seems fitting because it gives an opportunity for us to relate and respond to each other.

Dancing to the Quarks Song:

Note: This dance is illustrated on the video which is within this CD.

Preparation: Help participants notice the rhythm of the song.

Da-duh, Da-duh, Da-duh. Clap, clap.
Da-duddle-lee, duh, duh, duh. Clap, clap.
Da-duh, Da-duh, Da-duh. Clap, clap.
Da-duddle-lee, duh, duh, duh. Clap, clap.

This means the song is organized so that there are four sequences, each with a short time for action, followed by two quick claps.

Whole Group Dance:

Notice that the music has two distinct parts.

Part A: Form a circle and hold hands. Like the Mexican Hat Dance, kick with heels extended, then let go of hands and clap two times. Do it all together, not with partners.

Part B: Hold hands and walk or skip to the right.
Then, hold hands and walk or skip to the left.

Illustration of the dance using Verse Two:

Part A: Move one foot then the other forward, extending heels, 3 times.

The quarks, the quarks, we dance. (clap, clap)
Until something big appears. (clap, clap)
We dance and dance and dance. (clap, clap)
For three hundred thousand years. (clap, clap)

Part B: Hold hands and walk or skip to the right.

*Some quarks go up and some go down.
We are not all quarks of one feather.*

Then, hold hands and walk or skip to the left.

*With the help of the glue of the gluons,
see what happens when we come together.*

Small Groups Dance

An optional method is to cluster into groups of 4 students. Encourage groups to find a way of moving together so that all feel connected.

Suggestions for moving together:

- * Hold hands and kick three times, extending your heel, as in the Mexican Hat Dance as discussed above. Drop hands and clap.
- * Instead of circling up, two children who are facing each other across the circle hold hands and rock back and forth, while the other two do the same thing so that the connected arms of each pair cross each other like an X. In the video, this is shown by the group on the left.
- * Put one hand in the center and move like a wheel in the same direction. In the video, this is shown by the group on the right. If it feels confusing to alternate directions, stay moving in the same direction, each time pausing and clapping.

Experiencing the Quarks Journey:

In your small groups, improvise motions to fit the long complex journey of the Quarks. First listen to the whole song and discuss the meaning so that participants can visualize the transformations. Next, groups talk together and plan how to vary their motions to fit the changing words. Example: “Clump into clouds to make star dust and explode in a big Super Nova.” Talk as a group about how you will clump, and how you will explode so that you still retain a feeling of connection.

Cooperative Learning Format:

Photocopy the lyrics and give a different set of words to each of the small groups. Use 7 segments: not only the 5 verses, but also the chorus and the ending chorus of celebration. Each small group devises a way to move during their segment. Next, they present the movements they have invented to the whole. At this point, they receive feedback and may be asked to go back and revise a section of their choreography. When the whole group feels comfortable with each

segment, everyone learns the movements that each small group has created. Now they can do the whole dance together, making each step of transformation.

2. The Cells Start Moving Song 14

Lyrics:

- 1) Inside the ocean, life's begun, hurrah, hurrah.
The cells start moving one by one, hurrah, hurrah.
Lightning storms upon the sea, and simple cells start to be.
And we all keep dancing under the sun. What's yet to come?

Refrain: Bom, bom, bom, bom. Bom, bom, bom, bom.
- 2) Now it's cool we're molecules, hurrah, hurrah.
We gobble sun to make our fuel, hurrah, hurrah.
We photosynthesize today, bacteria with DNA.
And we all keep dancing under the sun. What's yet to come?
- 3) Now let's make bodies that can swim, hurrah, hurrah.
Jellyfish and worms come in, hurrah, hurrah
To get a backbone is our wish, so with a swish come the first fish.
And we all keep dancing under the sun. What's yet to come?
- 4) To leave the sea you know we oughta, hurrah, hurrah,
Find a way to carry water, hurrah, hurrah.
The ferns and moss in a chain, keep water in their own membrane.
And we all keep dancing under the sun. What's yet to come?
- 5) Big and little start to soar, hurrah, hurrah.
The insects and the dinosaur, hurrah, hurrah.
When the plants start to flower, the mammals can begin their hour
And we all keep dancing, under the sun. What's yet to come?
- 6) Then when the first birds came along, hurrah, hurrah,
The earth erupted into song, hurrah, hurrah.
But to make a song inside the heart, human beings have to start.
So the song keeps dancing, under the sun. What's yet to come?
- 7) We sang in circles made of stone. Hurrah, hurrah,
We told the stars we're not alone. Hurrah, hurrah.
In us the earth took a dare to make a species who can care

that we all keep dancing under the sun. What's yet to come?
8) And now we make a change heroic, hurrah, hurrah.
We'll bring about the Ecozoic, hurrah, hurrah.
We are the earth, and we can mend. New life awakes in us again,
so we all keep dancing under the sun, cuz we're what's to come.

Source: Tune, "The Ants Go Marching." New words by Sarah Pirtle.

Background of the song:

I like to imagine the moment when life began in the oceans of Earth, when chemicals in organic compounds became organic life. The song is intended to help children grasp the stages of evolving life, and give a perspective on when humans arrived, and how we're evolving now.

Guides for using the song:

(1) Help students imagine cells, the basic structure of independent life. Humans are made of billions of cells. Say to students: "For a moment, with your imagination feel this reality. Stand and wiggle yourself as you hold this fact -- I am made of billions of cells."

(2) I've found that both children and intergenerational groups enjoy improvising movements to follow each development. Play the recording and invite people to pretend they are going through each stage of life.

(3) My main reference books are *The Universe Story* by Brian Swimme and Thomas Berry (Harper San Francisco: 1994), and *A Walk Through Time: From Stardust to Us* by Sidney Liebes, Elisabet Sahtouris, and Brian Swimme (The Foundation for Global Community: 1998).

Here's a perspective on time.

Verse One: Four billion years ago water vapor condensed with the cooling of the earth to form seas. In the seas the first cells began.

Verse Two: 3.9 billion years ago cells invented photosynthesis. A billion years ago cells learned how to merge, and 700 million years ago the first multicellular animal appeared.

Verse Three: Jellyfish and worms arrived 600 million years ago. Fins were developed 415 million years ago.

Verse Four: Devonian Era - first trees 370 million years ago
Carboniferous Era - conifers of land-worthy seeds 350 million years ago

Verse Five: Carboniferous Era - Insects have wings 330 million years ago
Triassic Era -- Dinosaurs appear, flowers spread, 235 million years ago.

Verse Six: Jurassic Era -- Birds appear 150 million years ago.
Pliocene Era -- First human: Homo Habilis 2.6 million years ago.

(4) Explain the term, “**Ecozoic**.” It’s from Thomas Berry and it is at once sobering and hopeful. It indicates that the Cenozoic Era, which was characterized by great diversity of life forms, has in effect ended because humans have created species extinction, cut down rainforest, and devastated biodiversity. It also points to a new era of care and awareness and indicates that groups of humans are committed to becoming responsible for our actions. It is a mammoth event to be part of a new geologic era. This is why the song says, “New life awakes in us again.” We are part of an evolution of consciousness.

3. Dancing DNA Song 16

Lyrics:

1. If you take a walk with me all living things that you see
are made of something that’s the same. DNA by name.

Chorus: The dragons dance, the dragons dance.
Whirling twirling dragons play.
Rainbow ribbons winding up.
That’s our dancing DNA. Our dancing DNA.

2. It’s tinier than your nose. It’s tinier than your toes.
Find the place these dragons dwell. Look inside your cells.

3. If you could look inside a tree, an artichoke, or chimpanzee,
Frogs or mud or grass or hay. Their building blocks are DNA.

4. It starts the dance inside each cell. It helps us grow but hides so well.
It tells the color of your eyes and your hair color surprise.

5. I dance with you, my DNA. You’re the leader of this boat.
Dance inside my tiny cells. Your joy keeps me afloat.

Last chorus: The dragons dance the longest dance.
Whirling twirling dragons play. Rainbow ribbons winding up.
That's our dancing DNA. Our dancing DNA.

Source: Words by Sarah Pirtle. Music based upon the Irish traditional song, "The Road to Lisdoonvarna."

Background of the song: My goal is to introduce the wonder of DNA to children through this song, and to convey poetically that DNA shows us the unity of all life. In 1794 Erasmus Darwin made a guess that "one and the same kind of living filaments is and has been the cause of all organic life." Today we are able to decode the Human Genome. This is a monumental achievement. The song can help inform young people about this breakthrough.

Guides for using the song:

(1) Dr. Molly Fitzgerald-Hayes, professor of Biochemistry and Molecular Biology at the University of Massachusetts provides these facts:

* DNA is like two long ribbons, or strands of the letters A, G, C and T. These stand for adenine, cytosine, guanine, and thymine. The ribbons wind around each other to form the famous double helix.

* In a "gene," the exact order of the letters in the gene actually spells out the exact order of the amino acid building blocks in the specific, encoded protein. Proteins make up the structures inside and outside our cells and comprise the molecular machines that do the work in our cells.

* The Human Genome is the "Master Plan" for the human body, and it contains all of the instructions necessary to make a thinking, feeling, walking, talking, functioning person.

* DNA carries information. We can think of it like letters, words, or codes. There are 3.2 billion letters in the human genome.

(2) Pose the first question as a riddle -- "What is tinier than your toes?" Lead the group into imagining the dynamic force inside our cells that is like a guiding recipe of information.

(3) Dragons: Discuss the songwriter's choice of the image of dragons to represent the power, kindness, and flexibility of this guiding force.

(4) Drawing the essence of DNA: Provide colorful crayons or pastels to use as you listen to the song. Draw what DNA dragons look like that move like twisting rainbow ribbons.

(5) Discuss the words in the song. Clarification: Mud in and of itself has no DNA, but the bugs, bacteria, worms that make up the mud do have DNA.

(6) Moving like DNA: Collect scarves and use them to dance to the song. The silken quality of the scarves reflects twisting DNA. I like to give one scarf to three people to share and have them create a movement sequence using the scarf during the chorus of the song. Examples: Tossing it high and going underneath it, or twisting and untwisting in a pattern. Then they teach their movements to another group, like replication of a three letter word in a genetic code.

(7) Talk about the fundamental unity of life. DNA extends from the earliest forms of life through the evolutionary chain. Author Matt Ridley explains that "The three-letter words of the genetic code are the same in every creature...The genes in the cells of your little finger are the direct descendants of the first replicator molecules; through an unbroken chain of tens of billions of copyings they come to us today still bearing a digital message that has traces of those earliest struggles of life." (*Genome*, 22)

4. Earth, My Body (I am the Earth Walking) Song 8

Lyrics:

Earth, my body. Water, my blood.
Air, my breath. And Fire, my spirit.

I am the Earth walking. I am the Water talking.
I am the Air dreaming.
I am the Fire streaming into hands and heart.
This is how we start round again.

Source: "Earth My Body" is a contemporary chant that has passed through many song circles and is listed in *Songs for Earthlings* edited by Julie Forest Middleton (Emerald Earth Publishing, 1998) as author unknown. The second part of the song

-- "I am the Earth Walking" -- was written by Sarah Pirtle.

Background of the Song: This song emerged from hearing the story of the Universe, from learning more about the New Cosmology through the teaching of Miriam MacGillis and Genesis Farm, and from the books of Brian Swimme and Thomas Berry. I hope to bring the insight to others that we're not just on the Earth. We're part of the Earth. We are Earth.

Guides for using the song:

(1) Use the song to spark discussion about the reality that we are made of the four elements -- earth, air, water and fire. *We are* the Earth walking. We are water talking, air dreaming, fire streaming. Explore your own interpretation of these beautiful truths.

(2) Hand movements: Suggested motions are shown on the video. On the recording, it's a slow song. When I use it in schools and camps, I sing it faster, and this tempo is used on the video.

<i>Earth, my body.</i>	Tap legs, then cross hands and tap shoulders.
<i>Water, my blood.</i>	With hands parallel, make wave-like movements.
<i>Air, my breath.</i>	Reach toward your mouth, then extend your hands like a puff of air.
<i>And Fire, my Spirit.</i>	As your hands cross, clap on "fire," then open and circle arms.
<i>I am the Earth walking.</i>	Tap one leg then the other. Two claps in the pause between the words.
<i>I am the Water talking.</i>	Same wave motion. Pause: One finger wiggles your lips - "bibble."
<i>I am the Air dreaming.</i>	Pointing fingers rub as they climb higher. ASL motion for star. Pause: Two clicks.
<i>I am the Fire streaming, into hands and heart.</i>	Clap on "stream." Clasp your hands near your heart.
<i>This is how we start round again.</i>	Circle your clasped hands.

Earth Literacy songs ***about living inside Earth rhythms:***

“The Moon is only whole when it is taken in its totality -- that which we see and that we do not see. So it is with life. Life is not whole until its totality is comprehended. When the physical part of life that we can see is taken with the spiritual part of life that we do not so easily see, then life can be full and complete for each of us.”

-- Edward Benton-Banai, *The Mishomis Book: The Voice of the Ojibway*, (Indian Country Communications, p. 83.)

5. Four Directions Song 5

Lyrics:

Introduction: Come on and sing, sing to the earth.

Come on and sing, sing to the earth, our journey has begun.

1. Come on and sing, sing to the east. Come on and sing, sing to the east.
Come on and sing, sing to the east. The place of the rising sun.
The place of the rising sun, the east is where new life's begun.
Oh, East, what will I see? Help me find what begins in me.
From the east, flies the eagle, and what begins will come around.
Climb on the back of the eagle,
and we'll be southward bound. We'll be southward bound.
Gonna ride, ride, ride. Find what begins in me.
Eagle, ride, ride, ride to the south.
2. Come on & sing, sing to the south. Come on & sing, sing to the south.
Come on and sing, sing to the south. Place of the fire's song.
Place of the fire's song, the south is where life grows strong.
Oh, South, what will I see? Help me find what grows in me.
From the south leaps the bright fox, and new strength will come around.

Climb on the back of the bright fox,
and we'll be westward bound. We'll be westward bound.
Gonna ride, ride, ride. Find what grows in me.
Bright fox, ride, ride, ride, to the west.

3. Come on & sing, sing to the west. Come on & sing, sing to the west.
Come on and sing, sing to the west. The place of the setting sun.
Place of the setting sun, the water's wide and harvest comes.
Oh, West, what will I see? Help me find the harvest in me.
From the west swims the old whale. What you need will come around.
Climb on the back of the old whale,
and we'll be northward bound. We'll be northward bound.
Gonna ride, ride, ride. Find what peace there be.
Old whale, ride, ride, ride, to the north.

4. Come on & sing, sing to the north. Come on & sing, sing to the north.
Come on and sing, sing to the north. The place of the rich black earth.
The place of the rich black earth, where all life takes rebirth.
Oh, North, what will I see? Help me find my mystery.
From the north comes the black bear. What hides will come around.
Climb on the back of the black bear,
and we'll be center bound, we'll be center bound.
Gonna, ride, ride, ride. Find my mystery.
Black bear, ride, ride, ride, and return.

5. Come on and sing, and return, come on and sing, and return.
Come on and sing, and return. We are coming home.
Return to the center, the place where we are one.
Return to the center, and now our journey's done.

Source: Words and music by Sarah Pirtle.

Background of the song:

When we take the threads of life from each direction, we pull the world together. In the song we travel to each direction and meet elements and animals associated with the directions. East: air, eagle. South: fire, fox. West: water, whale. North: earth, bear. These animals differ with different traditions. For example, some people place mouse in the south, bear in the west, and buffalo in the north.

Guides for using the song:

(1) Draw a circle, label the four directions, and create pictures of each.

(2) Take up the questions of each direction. East: What begins in me? South: What grows in me? West: What am I harvesting? North: What mystery hides in me?

(3) Create a dance. Divide into six groups: four work with one of the directions. Another group doesn't dance but keeps time with rattles or drums. The rest are the visitors -- they travel to each direction, circle with them, and learn the movements they've invented. The four small groups in the directions invent a movement associated with the animals, the element, or the qualities of that direction.

(4) Resource: Genesis Farm in is a learning center for re-inhabiting the Earth. You can receive their newsletter by writing 41A Silver Lake Road, Blairstown, NJ, 07825. Their diverse resources include programs for teachers on sharing the New Cosmology with children. Staff of Genesis Farm pass along a body prayer to the four directions.

6. Mi-gwetch Ah-ki (Thank you, Earth) Song 10

Lyrics:

1. I went walking in the pines. The path led to the shore.
In the night the water's light blue. Who could ask for anything more?
Who could ask for anything more?

Chorus: The trees know when I sing to them.
And the blades of grass make a song they understand.
So I say, Megwich Aki, in the old words of this land.
Thank you Earth, Megwich Aki, in the old words of this land.

2. I was listening to the twilight sounds. An owl began to soar.
I tilt my head and catch the stars. Who could ask for anything more?
Who could ask for anything more?

Chorus: The birds know when I sing to them, & the blades of grass make a song they understand. So I say, Megwich Aki, in the old words of this land. Thank you Earth, Megwich Aki, in the old words of this land.

3. I was talking with the hermit thrush. She led me from the shore.
She flew me right up to the stars. Who could ask for anything more?
Who could ask for anything more?

Chorus: The stars know when I sing to them, and the blades of grass...

Source: Verses were written by Janet Diani's sixth grade class at Sheffield Elementary School in Turners Falls, MA, Earth Day 2002 along with Sarah Pirtle. Chorus and music by Sarah Pirtle. Students were asked to describe a place that made their heart sing. They described the feeling of walking in Barton Cove, Gill, MA, where people are helping restore nesting eagles to a small island in the Connecticut River.

Guides for using the song:

(1) Explain that the words *Mi-gwetch' Ah-ki'* come from the Anishinabe people. *Mi-gwetch'* means "thank you," and is pronounced like "Mee-gwih-tch." *Ah-ki'* means "Earth." The chorus of the song says, "In the old words of this land," yet the Anishinabe are not people of the past. *Mi-gwetch' Ah-ki'* are living words spoken today in ceremonies. The Anishinabe include the Ojibway (called by Europeans, Chippewa), the Wabanaki Peoples (Abenaki, Maliseet, Micmac, Passamaquoddy, Pennacook, and Penobscot), the Pocumtuck, and others. The words, *Mi-gwetch' Ah'ki,'* are in the Ojibway dialect. I brought these words to Earth Day because I wanted students to be aware of the Pocumtuck people who lived in the western Massachusetts area where we live today.

(2) Create new verses. Describe a place that makes your heart sing.

(3) Seek out The Mishomis Coloring Book series and other materials about the Ojibway Anishinabe from Indian Country Communications, 7831 N. Grindstone Ave., Haywood, WI 54843, (715) 634-5226. Edward Benton-Banai tells the Anishinabe's creation story: the Creator blew through a tiny shell into the four elements and the original people came forth. They migrated from the east starting around 900 AD from the area that is now Maine and New Brunswick, Canada, and moved during a 500 year migration into the area of the Great Lakes.

7. Move with the Moon

Song 7

Lyrics:

- 1) When the moon is new, our seed goes in the ground.
That moonlight moves inside the seed and new life circles round.
Into a crescent moon, the moon that's peeking out
Cuz the earth has held that seed, the seed begins to sprout.

Chorus: Move with the moon, and, oh, you will grow.
The garden's astir, row upon row.
Move with the moon, the tides and the tow,
Dark turns to light and fast turns to slow--oooh.

2) Ah ha, the quarter moon, visible at noon
Seed is bursting into stalk, humming a fast tune.
And now the gibbous moon, shouts into the sky.
Life is good, let's make a bud and, oh, the colors fly.

Chorus: Move with the moon, and, oh, you will grow.
The garden's alight, row upon row.
Move with the moon, the tides and the tow,
Dark turns to light and fast turns to slow--oooh.

3) A circle glowing round. Full moon takes her ride
Now from that bud, the petals form, and a flower opens wide
Then bursting into fruit, the moon begins to wane
But in that fruit there is a gift that brings us seeds again.

Chorus: Move with the moon, and, oh, you will grow.
The garden's apop, row upon row.
Move with the moon, the tides and the tow,
Light turns to dark, and fast turns to slow--oooh.

4) At the last quarter moon, we gather what we've grown
And hold in us the harvest time and the harvest takes us home.
As now the moon draws in, a sliver up at dawn
All that was inside the plant is moving underground.

Chorus: Move with the moon, and, oh, you will grow.
The garden's at rest, row upon row.
Move with the moon, the tides and the tow,
Light turns to dark, and fast turns to slow--oooh.

Repeat the first verse.

Last Chorus: Move with the moon, and, oh, you will grow.
The garden's coming back, row upon row.
Move with the moon, the tides and the tow,
Dark turns to light and fast turns to slow--oooh.

Source: Words and music by Sarah Pirtle.

Background of the song:

The song was inspired by the article, “The Eight Lunar Phases” by Susan Levitt, in *We’Moon* 2000, and also by learning from Chris Marano and Laura Maples during the Clearpath Herbal Apprenticeship Program.

Guides for using the song:

(1) Study the structure and patterns within the song. Each verse presents two phases of the Moon.

The song names the eight phases of the Moon which last about three to four days: New Moon, Crescent Moon, Quarter Moon, Gibbous Moon, Full Moon, Waning Full Moon, Last Quarter Moon, and Waning Crescent Moon. At the same time, these phases of the Moon are compared to the stages of a garden: seed, sprout, stem, bud, flower, fruit, harvest, and returning to the soil.

Notice the return of the cycle in the fifth and final verse.

(2) Anchor your understanding by making a circle drawing that shows a changing garden and a changing size of the moon. Make lines intersecting the center of the circle to divide it into 8 segments for the eight phases.

(3) Explore the amazing reality of the Moon and marvel at our relationship with it. Discuss that the moon is there all the time whether or not we can see it. What changes are the positions of the Earth and Moon and Sun in respect to each other. For instance, the new moon happens when the Moon is on the other side of us along with the Sun. Earth couldn’t be the planet we know without the moon. Discuss how the moon affects all the water of our planet -- the water in us, in plants, in the weather in the sky -- and how the moon causes the tides of the ocean.

(4) Peter Paul, from the Maliseet Anishinabe of Maine says that when you analyze the Maliseet word for Moon it means “he borrows or begs from the sun.” (*The Sacred*, Navaho Community College Press, p. 88). Express this relationship between moon and sun in a drawing.

(5) Discuss the Giant Impact theory of how the moon began and draw a picture of it. As described in *Astronomy for Dummies* by Stephen Maran (IDG Books, 1999, p. 96-97), this theory says that 4.5 billion years ago a giant object three times the

mass of Mars hit the Earth, set us spinning, and led to the creation of the moon. During the impact, a vapor of hot rock was knocked into space, and it condensed into the moon.

8. Recycle Hokey Pokey

Song 15

Lyrics:

1. You put the can in. You put it into the bin.
You grind it down and you heat it all around.

Chorus: You do the Earth recycle and you turn it all around.
That's what it's all about.

2. You take the bottle glass and you melt it down.
It makes a new shape. You mold it 'til its round.

Refrain: You do the Earth Recycle (3x) That's what it's all about.

3. You take the vegetable peels, but not the foil.
Shovel in the ground and it turns to soil.

4. Add the newspapers into the chemical bath.
We make new paper so we can do math.

5. Did you know that I'm recycled, and so are you.
We're recycled stardust. A mystery that is true.

Last chorus: The Universe recycles, everything keeps moving on...

Source: Traditional tune, "The Hokey Pokey," with new words by Sarah Pirtle. Some verses were created with fifth grade students at the Solomon Schechter School in Worcester, MA in 1990.

Background of the song: I based the verses upon facts about recycling in *Fifty Simple Things Kids Can Do to Save the Earth* by the EarthWorks Group, Kansas city: Andrews and McMeel, 1990.

Guides for using the song:

(1) Here is supplementary information to go with each verse:

Verse 1. The aluminum in cans is able to be recycled over and over. Aluminum is ground into chips, melted into bars, and then rolled flat. In 1990 65 billion

aluminum soda cans were used each year. Think what happens if they aren't recycled!

Verse 2. We throw out enough glass bottles and jars each month to fill a giant skyscraper.

Verse 3. Does your family and does your school save used paper for scrap and collect it for recycling?

Verse 4. Biodegradable food like lettuce, apple cores, and vegetable peels can be composted to make rich garden soil. Schools, camps, and families can collect lunch scraps for compost in a separate bin.

Verse 5: "The Quarks Song" talks about stardust exploding in a big Super Nova. This was the creation of all the elements which are on Earth. We're made from these "seeds."

(2) Here are movement suggestions for this song.

* Verses: Create pantomime motions to match the content of the verses.

You put the can in. Pretend you hold a can in one hand and with other arm create a large canister to put it in.

You put it into the bin. Point to that bin.

You grind it down. One fist on top of the other grinds.

And you heat it all around. Position one hand on top of the other, flat with fingers extended, and wave them as if hot.

In a similar manner, act out the other verses. Shape the bottle glass with your hands in verse two. Peel vegetables, then push away the foil in verse three. Tear strips of newspaper in verse four. Move your hands in spirals in verse five.

Chorus:

"You do the Earth Recycle and you turn it all around."

Thumbs out -- Lead with your thumb out in one direction, then motion the other way with your other thumb. Now both together.

Other options for movement:

For younger children - Roll your arms in a circle.

Or, move like the Hokey Pokey dance turning around while

waving your hands.

Clap on the last phrase, "*That's what it's all about.*"

9. Uncle Junie and the Shark

Song 13

Lyrics:

1. Come on out to the coral reef. Ocean waves are breaking free.
Sail on out, you'll meet the sharks. They all know Uncle Junie.
Uncle Junie hugs the sharks. A nurse shark won't hurt a soul.
Swim like angels through the hurricanes,
In these waters they rumble and roll.

Chorus: Oh, oh, rumble and roll.

Rumble and roll wherever I go.
Talk with the fish, talk with the sea.
Gonna live the life that's calling me.

2. We watch the nurse sharks 'round our boat.
Junie says those sharks can feel.
They glide by. They bring good luck.
They don't want us for their meal.
When we sail and catch the breeze, we join the dream of the ocean.
Swim in undersea lagoons where the fish teach me their motion.
3. One day a shark sent a call, and fish to fish passed it along.
"A motor boat has hit my side. I'm sinking fast. I'm nearly gone."
Junie swam down through the deep
to the sandy place where she did lie.
She spoke to him. He spoke to her,
"I'll do all I can so you won't die."
4. He gulped a breath and pulled her along, he pulled her on so carefully.
He held her fin, helped her glide, while the ocean it sang silently.
He hid her safe in a coral reef, a secret place where she could stay.
"And now, I won't leave you alone. I'll bring you fish every day."
5. One day she looked him in the eye,
"I'll say goodbye. My wounds did mend."
When Junie sails to the coral reef, every shark is now his friend.

Junie swims through the coral flowers, where the waves break silently.
Baby sharks look for him, to say, thank you, you saved Grandmommy.

Source: Words and music by Sarah Pirtle

Background of the Song:

Erin Berard of Plainfield, MA met Junie when she visited Belize. When she noticed that all the people departing Junie's sailboat were smiling and how he was hugging everybody, they knew they wanted to have a sailboat ride with him. As she got to know him, she learned his story, told in the song, of rescuing a hurt nurse shark. The creation of Junie's nephew as narrator is fictional.

Guides for using the song:

(1). Discuss what the group already knows about sharks before listening. Then afterward discuss Junie's experiences. Add that when Erin Berard went on a sailboat ride to the coral reef, she had a chance to swim with a nurse shark. Junie showed her that she could kiss the belly of the shark and it felt smooth like silk.

(2). Share these facts about sharks that you can find in *What Do Sharks Eat for Dinner: Questions and Answers About Sharks* by Melvin and Gilda Berger (Scholastic Inc., 2000)

* The kinds of sharks that are dangerous to humans are fewer than 20 percent of all species. Only about fifty people from all over the world get attacked by sharks each year.

* Nurse sharks hide in reefs and are slow-moving. They move like snakes and eat shellfish like crabs and sea urchins. The only time they've been known to bite a person is when a skin diver, who hadn't built the kind of relationship that Junie cultivated, tried to ride one.

* Sharks are older than dinosaurs and have been here for over 350 million years.

(3). Some sharks are in danger of becoming extinct because of shark fishing by humans. The Bergers' write: "Since sharks are at the top of the ocean food chain, their disappearance threatens to upset the balance of nature. Learning about sharks is a first step in helping to save them." Talk about the importance of people protecting sharks.

10. Whale Watch

Song 3

Lyrics:

1. When I was the age of ten, I went to watch the whales.
They know 'em by their flukes. They know 'em by their tales.
All the flukes are different. The patterns aren't the same.
If you see a humpback tail, then you can learn their name.
Our boat goes into Stellwagen where the whales swim free.
I've been there so many times, that the crew knows me.
I've seen the whale called *Cat's Paw*. You know, she has no fleas.
And I've met the *Cyclone* who's as gentle as a breeze.

Chorus: Whale Watch! We're rolling! To starboard look about.
Did you say that rise of spray could be a whale spout?
With cameras at the ready, the scientists proclaim,
We can track each humpback from the tail that tells their name.

2. Watch out for the *Drip*, a *Drip* that's sixty-five feet long.
And you may see *Salsa* dancing to the ocean's song.
There's *Lance* and there's *Torpedo*. But they won't make us halt.
And *Crystal* is the baby whose mother's name is *Salt*.
Well, some names are so corny, that you gotta cringe.
One baby is named *Thread*. The mother's name is *Fringe*.
The first were *Salt* and *Pepper*. Now there's *Pinstripe* & there's *Moss*.
With all the gunk in their baleen, I'd like to call one Floss.
3. Our captain shouts out, "Six o'clock," that means rush to the back,
And there's a sight of lacy flukes completely shiny black.
That means that this is *Falco*, and when we see her calf,
They know her name is *Epaulet*. Her leaping makes me laugh.
Well, *Falco* she is feeding. Her giant mouth I see.
Scooping up the sand eels with great frivolity.
She weaves a net of bubbles. Her baby watches proud
as she rises up with open mouth and lunges through that cloud.

4. We're looking out for more whales and I can feel the splash
Of giant waves a rolling as the rainy winds they blast.
I'm leaning from the railing and screaming as I see
Two great heads a-rising up and looking straight at me.
One is just a baby, and its flopping on its back.
They say this is a new calf who gives those waves a crack.
And I would like to name that calf a name we won't forget.
With all those white dots on its flukes, I'll call it *Bubble Net*.
5. And so when it turned autumn, the crew did congregate
for the naming of that new whale. Raise glasses, fill your plate.
I went there and I told them what I thought the name should be.
They laughed and then they shouted, *Bubble Net* it's gonna be.

Chorus: Whale Watch! Watch out! To starboard look about.
Did you say that rise of spray could be a whale spout.
And if you see a black tail with dotted alphabet.
If it has white polka dots, it's probably *Bubble Net*.

Source:

New words by Sarah Pirtle. The tune is a 19th Century Irish-American ballad of the Great Lakes called, "The Cruise of the Bigler." John and Alan Lomax collected the song, and I learned it from Pete Seeger at a People's Music Network workshop.

Background of the Song:

Since 1979 I've gone on over fifteen whale watch cruises into Stellwagan Bank off Cape Cod and Gloucester, MA, an area rich in tiny fish and sand eels that whales love to eat, and every time I whoop with excitement to see the whales. In the 1980's I learned that the Center for Coastal Studies in Cape Cod hosted a gathering each year where people help name the humpbacks newly sighted. I began writing this song during a whale watch when I met a boy who was equally fascinated with the varied names given to humpbacks, and we collected a long list of names from the scrapbook on board. I liked imagining a child who actually gets to name one of the humpbacks.

Guides for using the song:

- (1) Find the names of fifteen humpback whales in the song, not including the invented name, "Bubble Net." Note that the lyrics above are slightly different in

verse two to make a correction. *Fringe* is the mother of *Thread*, a male humpback.

(2) Talk about the history of naming whales. As the song says, the first whale to be named was Salt in 1976.

Here's the background. A fisherman, Al Avellar, from Provincetown started the idea of whale-watching. In mid-70's he noticed that when he had a boatload of people fishing, they'd stop and watch the whales. Al began taking out school groups and charters. He wanted it to be scientific so he invited Stormy Mayo, one of the three founders of the Center for Coastal Studies, to be on board as a scientist.

The Dolphin Fleet still runs trips from Provincetown. It was Al's son, Aaron, who named Salt, from her white encrusted dorsal fin. In fact, Aaron figured out that by noting dorsal patterns, he could re-recognize the same whale and distinguish from other whales. Aaron gave the whale who traveled with Salt the name of Pepper.

As portrayed in the song, researchers come together yearly to create names based upon the natural markings on the body. These gatherings used to be held in the autumn, and that's what I put in the song. As whale watching has expanded, researchers throughout New England have met in the spring after the data analyzed about the new whales is ready.

(3) You can learn about the extensive programs of the Center for Coastal Studies at their website -- www.coastalstudies.org. Also, you can contact the Stellwagen Bay National Marine Sanctuary through the NMS section of the website: www.noaa.gov and find out about a CD that is made about the new whales seen. To learn about whale naming contact Anne Smrcina at Stellwagen Bay NMS.

(4) Whale Puppet: I have a 28 foot humpback whale puppet that Erin Berard and I constructed. It has five-foot-long flippers and takes about a dozen kids to operate. Contact me if you want to borrow it or have it brought to your school. In our town of Shelburne Falls, the spring event to celebrate the river is often a time this puppet parades down mainstreet.

(5) Pete Seeger and friends created another song to this same tune, "The Bigler." It's called, "The Schooner Denis Sullivan," and it tells about the schooner built to honor the Great Lakes, the way the "Clearwater" boat helps the clean-up of the Hudson River. I learned this tune when I helped with that song.

***Songs of support to cherish
ourselves and each other:***

“The Earth loves us. The Universe hungers for us
as we hunger for the Universe. We are grateful for hunger and
nourishment dynamically arising.”

-- Miriam MacGillis

A spontaneous grace, Genesis Farm.

11. Heartbeat of the World Song is on the video.

Lyrics:

All the people of the Earth, share a heartbeat, share a heartbeat.

We hold the fire of the world.

And the light of the sun beats inside us like a drum.

We're together in the heart of the world,

together in the heart of the world.

Refrain:

I ask the birds of peace to fly to my heart

from the sky of the heart of the world.

I ask the birds of peace to fly to my heart

from the sky of the heart of the world.

The heart of the world, the heart of the world

we're together in the heart of the world.

The heart of the world, the heart of the world

we're together in the heart of the world.

Verses: All the people in this room
All the people that I see
All the people in all lands...

Words and music by Sarah Pirtle, Discovery Center Music BMI 2002

Background of the Song: I believe that our hearts are in touch with the Universe all the time and each of us is made of a unique wavelength of light from the sun that we express. The song refers us back to our hearts, helps us feel our common beat, and gives us a visualization of our unity. Author and educator Joseph Chilton Pearce says that it is the heart that opens the brain. When a child feels loved and safe in a classroom or any group, the child has coherent brain waves. We says it is the heart that grows the brain because the heart opens up our prefrontal lobes, the new brain, where values like compassion and respect are developed.

Guides for using the song:

(1) With one hand touch the ground. With the other hand touch your heart and feel your heart beating. Think about all the people all over the Earth, each with a beating heart.

(2) Keep a beat as you sing to the song.
The video teaches two ways of doing the song with movements.

Seated in a circle

<i>All the people of the Earth</i>	Tap together rhythmically on
the ground.	
<i>share a heartbeat, share a heartbeat.</i>	Encourage people to notice
each other.	

<i>We hold the fire of the world.</i>	Cup your hands to your heart. Then
blow into the center of your hands as if igniting a fire.	

Have you seen a person blow on a fire to make it stronger?"

And the light of the sun Extend fingers to the sky, then
cross hands at heart with closed fists.

beats inside us like a drum. Repeat same motion.

We're together in the heart of the world. Hold hands together.
We're together in the heart of the world. Notice each other.

Standing in a circle

All the people of the Earth Tap the hand of the person next to
you, then clap hands in front of you.
share a heartbeat, share a heartbeat. Tap on "all," and clap on "people"
to get the right pace.

Variation for younger children:

Simply stand in a circle and clap hands to the beat.

We hold the fire of the world. Bring your hands in close and rub them.

And the light of the sun Face to the right and rub the back
of the person next to you. Keep your left hand (the L
hand) like a spoke into the center of the wheel.

You are warming the back of their heart.

beats inside us like a drum.

Variation for younger children: Rub with both hands,
instead of trying to keep the left hand in the center.

We're together in the heart of the world.

We're together in the heart of the world. Come in close together
by crossing your arms and holding hands.

12. Magic Wings

Song 1

Lyrics:

1. There is no one like you in this world and I truly want to know
the way you really are. Take a chance and let it show.

Chorus: Magic wings, magic wings. Open up your magic wings.
Magic wings, magic wings. Open up your magic wings.

Refrain: That's the story going round of the glory that can be found.
We are different and we are one. It's a struggle, yes, to grow.
But oh, you are more than you know.

2. Can you feel it's time to change? You gotta open up that door.
Let go of the way things were. Make room for something more.

3. There's no one like you in this world so I hope that you won't hide.
I can see your golden wings, and I want to see you fly.

Ending: And you can fly, fly, fly, fly, fly.

Source: Words and music by Sarah Pirtle

Background of the Song:

In Deerfield, MA there is a butterfly conservatory called "Magic Wings," and I began this song after visiting it and rejoicing in the wonder of butterflies. I also am singing about the Universe Story as explained below because that's the story that's continually going around for me in my head and heart. I keep sipping those truths the way a butterfly sips nectar.

In the verses I talk about friends supporting friends. I began writing the songs after a close friend named Karolka Rottenberg died from the debilitating disease of ALS. As Karolka and I talked during the months before her death, she shared powerful words of encouragement about facing the trials and tribulations in life. Karolka said once to a mutual friend, "I believe that we are surrounded by the help we need and just to tune into that brings comfort." We like butterflies are embedded in a process of growth, support, and transformation.

I worked on the song for a year, holding onto the basic phrase and having faith that verses would grow around it. Only on the very day the recording session was scheduled, did all the words fall into place.

Guides for using the song:

(1) Play the song and invite listeners to talk or write about ways in which they can identify with a caterpillar going through metamorphosis.

(2) Brainstorm together phrases of encouragement that a friend might say to a friend. These could be words that you have heard from friends, that you have said to friends, or words that you would like to hear.

(3) Create a picture of a butterfly coming out of a cocoon. Write on the picture any words or phrases of encouragement from the list.

(4) **Ecozoic Theme:**

Listen to the refrain from the perspective that this is about the Universe Story, and the New Cosmology is the “story that’s going round.” In the supplementary materials there is a presentation of the three fundamentals of the Universe. These three are encapsulated in the words of the refrain:

We are different, and we are one.
It’s a struggle, yes, to grow.
But, oh, we are more than we know.

Dance Extension:

Watch the circle dance that was made for “Tree of Life” on the video within the CD. Contact me if you’d like a description of the circle dance I’ve invented for “Magic Wings.” Or create your own!

13. My Mother’s Song: For Mary

Song 19

Lyrics:

MY MOTHER’S SONG: For Mary

Capo 4 Actual key: E

 C G F C
1. Don’t let that loud noise get me.
C Am G
I wanna come in from the storm.
C G F C
Something I heard upset me.
C Am G
I need you now to keep me warm.
will.

 F C
I hear you calling.
 F C
I will help you.
F C
I am with you .
G
And I will, and I will, and I

C Am
 Chorus: My mother and I, she hears my cry.
 Em F C
 She shelters me. She comes running.
 C Am C Am
 She carried me here. She holds me near.
 F G
 And for always, I hear my mother's song

2. Some kids at school were lying, they lied about me.
 I couldn't think of a thing to do. I will help you.
 I turned around and ran away. I am with you.
 Gotta find my voice and come on through. Yes, you will, yes, you will,
 yes, you will.

3. I'm moving on my own now. And I trust you.
 I've many dreams of what I'll do. I'll still listen.
 When doubts and fears upset me. I am with you.
 I believe in me and I'll come through. Yes, I will, yes, I will, yes, I
 will.

Last chorus:
 My mother and I, she hears my cry.
 She shelters me as I go running.
 I carry her here. Her heart is near.
 And for always, I hear my mother's song.

Repeat:
 My mother and I, she hears my cry.
 She shelters me as I go running.
 I carry her here. Her heart is near.
 And for always, I hear my mother's song.
 F G
 through the night and through the day.
 F C
 I hear my mother's song.

Source: Words and music by Sarah Pirtle.
 You'll hear three different girls singing on the verses to reflect the changing age
 of the narrator in the song.

Background of the Song:

I wrote this song after co-leading a workshop for mothers and daughters at Woolman Hill Conference Center. Mavis Gruver, who with her family started “New Moon Magazine,” and I led activities that helped participants ask questions and talk to each other. One girl reminisced about a time when she was younger and ran to her mother, saying, “Don’t let that loud noise get me.” That sparked the first verse. The chorus spilled out to reflect the warm connection I’d observed between the mothers and daughters there.

Guides for using the song:

(1) I’ve heard it said that mothers and daughters don’t have to grow apart as the daughter gets older -- it’s a false and unfair cultural prediction that a rift must occur. The relationship changes, but the closeness can remain. Encourage discussion of the way that a mother’s support looks different at different stages.

(2) Articulate the way that the needs of the daughter change in the verses of the song. Ask listeners, “What’s the difference in the three stages?” Then explore for your own life: “How do you want your mother to support you at this age?”

(3) If you are working in a group, ask everyone to write out anonymous questions on scraps of paper. You can collect questions for mothers in one basket and questions for daughters in another basket. Read them out loud and ask for anyone in the group to respond. Sample question that came up in our workshop: A question posed to the mothers -- “What do you get angry about and how do you act when you’re angry?”

14. Tree of Life (Shalom, salaam)

Song 9

Lyrics:

Introduction and closing: Come under the branches, shalom.

The wisdom in the branches, salaam.

The earth sings out for peace.

Paz. Mir. Heciva (pronounced Hey-wah).

Chorus: Tree of Life, tree of life. Shalom the Tree of Life.
Tree of Life, tree of life. Salaam, the Tree of Life.
Branches of peace spread over us your song
That our hearts once again, our hearts once again, will be strong.

1. Come under the branches, the branches that are rooted.
Trust your heart to be, open like the leaves connected to the sunshine.
Share this family tree.
2. If I hurt my neighbor, if I scorn my neighbor, it will come back to me.
If I hold your story like a trembling branch, new leaves come to be.
3. I want your heart to reach me, I need your heart to reach me.
I want all wars to cease.
We all began together. We all belong together.
Born from the Tree of Peace.

Source: Words and music by Sarah Pirtle.

Background of the Song:

The Tree of Life is an archetype representing the interconnection of all life on earth. All over the world people have felt it was important to imagine such a tree.

Guides for using the song:

- (1) Introduce the five words for peace: Shalom (Hebrew), Salaam (Arabic), Paz (Spanish), Mir (Russian), and Heciva (Japanese, pronounced Hey-wah).
- (2) Give everyone a chance to describe a favorite tree in detail. Where is it? What does it look like? When have they visited it?
- (3) Explain that in the shelter of this tree, we are all kin. Draw your own picture of the Tree of Life as you imagine it, including favorite plants, animals, people.
- (4) Look for artwork and weavings that depict the Tree of Life. On the video you'll see textiles from Kashmir and Guatemala with this image.
- (5) We are living in a time that is a turning point. The archetype of the Tree of Life passionately calls out its force of hope and reminds us of our essential unity. Create a letter or poem that allows this force, the Tree of Life, to speak to you. Ask a question and hear it respond.

Directions: Face forward. Let go of hands.

Tree of Life, Tree of Life. Walk into the center. Three steps & clap.
Shalom, the Tree of Life. Walk back. Three steps and a clap.
Tree of Life, Tree of Life. Walk into the center. Three steps & clap.
Salaam, the Tree of Life Walk back. Three steps and a clap.

Branches of peace, spread over us your song.

Four steps into center, clap with each step,
alternate turning to each side as you clap.

That our hearts once again, our hearts once again will be strong.

Hold hands and walk backward together.

15. True to Myself

Song 20

Lyrics:

1. Dancing through the darkness. I am dancing where my feet go.
I am reaching. I'll reach forever. I'm dancing all I know.
True to myself. True to myself.

2. Dancing through the shadows. I am dancing my lion's roar.
I am reaching. I am leaping. Dancing up to that door.
True to myself. True to myself.

Break: Don't tell me I got to be like somebody else.
Don't tell me I got to put my dreams on the shelf.
I am dancing with the sunrise, I dance in the rain.
I am moving through the mountains with the hurricane.
True to myself. True to myself.

3. Dancing through the moonbeams.
I am dancing up to that door.
And I reach it. I push it open to the world I've dreamed before.
True to myself. True to myself.

4. Dancing with the stardust. I am dancing our planet's roar.
I am leaping across the canyon. I'm knowing how to soar.
True to myself. True to myself. True to myself.

Source: Words and music by Sarah Pirtle.

Background of the Song: This song expresses what it feels like to me to be a transforming part of the Universe -- we step out into the darkness, into the unknown, staying true to our nature and trusting. I also wrote this song for the young people I've met at Journey Camp at Woolman Hill. This is a camp I've directed for nine years, and a few of the campers appear in the video. I want all young people to know that they are unique and important and their presence matters.

Guides for using the song:

- (1) Play the recording and afterward ask participants to write a letter to a friend of theirs who is feeling discouraged or to an imaginary person. Create a letter that urges them to believe in their worth. Next, read it to yourself and this time feel that *you* are receiving the letter. Share your writing with the whole group only if you wish.
- 2) Create a mandala shape, a symmetrical design in a circle. Fill it with images that give you a positive feeling.
- (3) Share these words. Read them out loud together. Believing that they are true, now imagine and hear the Universe talking to you. Ask the Universe a question -- anything you are wondering about. Pause quietly and write the response.

In all the universe, in all time, you are the only you.
Never before have molecules come together exactly like you.
Never again will your footsteps be repeated upon the earth.
Your strength is the strength someone can count on.
Your thoughts are the thoughts that can make the difference.
Your life is a life that can
move the whole world toward the good.

Dare to be the person you're meant to be!

-- Barbara Loots, Wildwood Press, Canada

Ecozoic Education -- Living the Questions

What is our Common Origin Story?

When we enter the Universe Story, we enter more than the facts. After the Hubble Space Telescope made it possible to see across vast distances, we had new insights and data.

But the information needed to be married with heart, with a poet's voice, with wonder and awe for the story to be spoken in the voice of the Universe. The book, *The Universe Story* by Thomas Berry and Brian Swimme (1992, HarperSan Francisco) speaks in that voice. Here is a short synthesis based on phrases from that text.

Thirteen billion years ago the Universe flared forth. Everything that would ever come to be was in that seed. All the light, energy, and potential was contained in it. It was a billion trillion times hotter than the center of the sun. There was an elegance to this unfolding. If space had unfurled one trillionth of a percent more slowly, the expanding universe would have collapsed back into quantum foam.

We are made of relationships. The first particles of matter which we call the quarks were fundamentally in relationship. At every point they, then and now, connected with two or three others. After 300,000 years of dancing together the quarks gave birth to the atoms. Hydrogen is the mother of all the matter that evolved. These atoms were many millions of times larger than the quarks. Concentrations of hydrogen and helium focused and became more amplified in the pressure of gravitational attraction. What had been a vast expanding mist, shivered forth with the structures of 100 billion galaxies, each one an elegant whirling organized dance of billions of burning stars.

Directions for our teaching

We are inside one of these 100 billion galaxies, the Milky Way, and one of the billions of stars inside the Milky Way is our Grandmother Star. It became activated by an enormous force of energy, dubbed a “star-making arm,” and went Super Nova. If we trace the transformation of this Grandmother Star, it leads to the creation of the star we know as our Sun, of the planets we know as our Solar System, of the home we know as our Earth, and of the elements we know as the constituents of life.

We awaken and find we are in an immense lineage of events. We are part of a wondrous epic, but not as bystanders. We are participants within a continuing story.

We are these quarks, we are this hydrogen, we are the dust of these stars, now thirteen billion years later, and when we treat ourselves and the children with whom we work with this reverence and mystery, we flower and they flower. When we teach them about community and caring, we are teaching them the basic language of this caring Universe.