

COSMIC EDUCATION IN EARLY CHILDHOOD (3-6 YEARS OLD)

Each moment is an opportunity to understand the integrity of the universe.

Most children 3–6 years old are very much absorbed in experiencing their immediate environment. These children feel close to and connected with the natural world. To lay the groundwork for cosmic education, it is enough for teachers to ensure that children experience nature as much as possible and retain their connection with the natural world. It is important for teachers to realize that in experiencing the natural world, the children are the teachers. Any three-year-old lying in the grass will see much more than a teacher will! The teacher's role is to not interfere with this experience, but allow it to happen.

To help the children retain their connection to nature and to appeal to their developing senses, the Montessori equipment, materials, and activities involve as much as possible natural materials such as plants, wood, water, and sand. When teachers and children are working with these and other materials, teachers can link the materials to their origins. For example, the Montessori Thermic Tablets, which are made of stone, wood, steel, and fabric, can be described as coming from different kinds of matter produced by the earth. Teachers can also discuss with the children what materials can be recycled, where the materials came from, and how the materials were made, linking the materials in the classroom with their origins in the world. At the same time, teachers can indicate the role of human beings in the collection and production of the materials. Even simple objects can provide rich material for cosmic education. Examining and discussing a simple block of cedar wood, for example, could guide the children to making many different connections. In this way, each activity and material can be linked to the world beyond the classroom:

- ❖ By touching, lifting, and smelling the wood, children can assess in a general way how heavy it is and whether it is hard or soft wood.
- ❖ By imagining what tree the wood came from, the children can think about where the tree grew, and in what part of the world.
- ❖ By talking about how the wood came to be a block, children can think about what tool might have made the shape, where the block might have been made and by whom, where it might have been purchased and for what purposes.

Teachers can connect many activities in the classroom to the natural cycles of the world. For example, while helping the children cook eggs for a snack, a teacher could discuss with the children where chicken eggs come from. After eating together, the teacher could invite the children to dry the eggshells, and then grind them up to make fertilizer for the garden. The teacher could explain that the chickens needed nutrients from the earth to make the eggs and that the children are now returning the nutrients to the earth. An activity like this incorporates practical life skills, the simple human pleasures of eating whole foods together, consciousness of the food chain, and the recycling of what is not consumed.

Introducing topics in a gentle, unobtrusive manner, teachers can initiate conversations with children in many situations, such as walking in the schoolyard, planting a garden, or just lying on the grass. Teaching within a cosmic perspective means seeing each moment of the present as an extension of the past and a prelude to the future, and the entire universe, both natural and manufactured, as existing in the present as a coherent, functioning, unified system. Each moment is an opportunity to

understand the connectedness of the universe.

Children 3–6 are almost always open to being outdoors. This makes it easier for teachers to support the children's sense of connection to nature in a direct, physical way. For example, a teacher might invite a few children to take a short walk outside on a bright spring day, and then share a simple snack of fresh bread. The teacher could initiate a story like the one below about the bread and all its connections with the world, inserting many pauses and encouraging the children to contribute details. The point is for the teacher not to make the situation into a fact-based cultural geography lesson, but to help the children link where they are and what they are doing and experiencing to other people and places in the world.

Here is an example of dialogue from the teacher's point of view:

- ❖ Look at this bread! Isn't it beautiful? Won't it taste good for our snack?
- ❖ Where does this bread come from? Further back than the bread basket in the school, further back than the store where the teachers bought it, where does this bread come from?
- ❖ So that we can have this bread today, last spring a farmer planted some tiny wheat kernels in a big brown field. In the field, under the soft brown earth, the tiny kernels would receive spring rains and warm spring sun, and the tiny kernels would start to grow into tiny plants.
- ❖ Feel how warm the sun is on our faces today. The sun feels warmer every day now that it is spring. The tiny kernels planted by the farmer would need lots of warm weather like this to grow.
- ❖ Just like people, plants need water to grow. Put your fingers into the soil in the garden. Does it feel damp enough for little wheat plants? We know that the little wheat plants would need lots more rain over the spring and summer to grow into big plants.

- ❖ At the end of the summer, the wheat plants will have grown big. They will be tall and golden yellow, and they will wave in the wind. How much would the wheat plants wave in a wind like we have today?



- ❖ After the summer, before the weather turns cold and rainy again, the farmer will take the wheat from the field. While you are watching leaves turn color in the fall, the farmer will take the wheat to a big, noisy mill. There the wheat will be ground between huge stones into soft, soft flour.
- ❖ The millers will sell the flour to bakeries, and the bakers will use their hot ovens to make the flour into bread and wrap it into loaves. Stores will put the loaves on shelves. Teachers will buy the bread, and children will eat it outside on a bright spring day!
- ❖ Smell the bread in your hand. Doesn't it smell good? It reminds me of that bright spring day last year when that farmer planted those tiny wheat kernels...

Other focused activities can also be conducted outdoors. Each activity presents opportunities to experience the connectedness of life. For example, if the school has an outdoor area that can support even a small garden, activities might include:

- ❖ planning a garden, then working together to build it
- ❖ ordering or purchasing seeds or plants
- ❖ growing bedding plants
- ❖ planting flowers and vegetables
- ❖ arranging a schedule and assigning responsibility for tending and watering the garden
- ❖ building systems for collecting rainwater to water the garden

- ❖ picnicking on the vegetables from the garden, then recycling the leftovers by composting
- ❖ picking a flower and placing it in a vase for a special school occasion

Having a garden serves as an excellent real-life analogy teachers can use to explain how all living things work together.

Teachers and children can talk about how worms aerate the soil for the plants while the decaying plants provide food for the worms. This sort of example helps the children realize how they too can work together to accomplish mutual goals.

Some schools hold outdoor events that celebrate a season of the year. Teachers and children can work together to include simple activities that involve the senses:

- ❖ creating a dance that mimics the unfolding of the season, choosing music that conveys the sounds and changes of the season
- ❖ designing a walkway that passes by several “smell” features of the season, such as in the spring a flowering cherry tree, a fragrant hyacinth, and composted earth
- ❖ designing a walkway that shows several examples of seasonal wildlife, such as in the fall an abandoned bird nest, a tiny hole burrowed at the base of a tree, and a garden plant nibbled by a squirrel
- ❖ preparing and eating a simple, local seasonal food (e.g., carrots in the fall, dried apples in the winter, eggs in the spring) and talking about how it came to be
- ❖ sitting in silence and just experiencing the sounds, smells, and sights of the season

Socially, most young children prefer to work on their own or just alongside others.

Teachers can enhance relationships between children by helping them interact socially through cooperative, rather than

competitive activities. Always giving the children the opportunity to choose what they are ready for, teachers can also gently encourage children to work together occasionally on projects that require more than one person to complete, such as making a poster or acting out a play. Teachers can also invite older children to read to younger children or teach certain practical life skills.