

A photograph showing several children's hands reaching into a large, light blue circular tray filled with various natural items. The items include brown and orange autumn leaves, a pile of green grass, a large, textured rock, and several pieces of light-colored, fibrous material, possibly dried mushrooms or plant matter. The children are wearing dark brown jackets. The background is a soft-focus green lawn.

Carla Gull, EdD
and Laura Wilhelm, EdD

LOOSE

PARTS

Alive!

Inspiring Child-Led Nature Explorations

LOOSE PARTS Alive

Inspiring *Child-Led*
Nature Explorations

by Carla Gull, EdD *and* Laura Wilhelm, EdD



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TABLE *of* CONTENTS

vii	Preface
ix	Acknowledgments
1	Introduction
7	Chapter 1 – Loose Parts Alive!
18	Chapter 2 – Slowing Down to Notice Nature
32	Chapter 3 – Honoring All Living Things
37	Chapter 4 – Practical Tips for Incorporating Living Loose Parts
59	Chapter 5 – Playing It Safe: Death, Decay, and Reasonable Risk
78	Chapter 6 – Creative Thinking and Technology Springboards
97	Chapter 7 – Asking Good Questions and Assessing Learning
102	Chapter 8 – Branching Out with STEM
121	Chapter 9 – Getting Dramatic with Living Loose Parts
135	Chapter 10 – Living Loose pARTS
148	Chapter 11 – Supporting Feelings and Friendship
155	Conclusion
157	Appendices
157	Appendix A: Program Highlights
166	Appendix B: List of Living Loose Parts (Not Exhaustive!)
169	Appendix C: Professional Learning Communities: Like a Book Club for Enthusiasts
170	References and Recommended Reading
176	Index





Preface

When catastrophe strikes, some people are able to draw on inner reserves of strength and prior experiences to assess the situation and make a plan for their own survival while assisting others. Teachers and other helping professionals are especially skilled at these tasks. We've listened to the flight attendants' instructions. We know to put on our own oxygen mask first and breathe normally. Yet with the global pandemic, very few of us had any similar experiences to fall back on. The rules had not been printed on the seatback card and were changing on us mid-flight. As adults, we found ourselves sandwiched between needing to care for and protect young children, as well as elderly friends and relatives, while learning to navigate almost universal uncertainty and changes affecting everything from our jobs to how to find groceries. In the United States, many parents also became responsible for keeping older children focused on virtual schooling and caring for babies and toddlers while trying to work from home. Although some European countries provided concrete supports for families with young children, pandemic trauma has affected virtually everyone on Earth. Each of us has experienced it differently, but almost no one, from babies to elders, remained unscathed.

As we emerge and recover, we need to recognize the trauma we've all experienced. We need to help children, especially, to process pandemic losses: the lives lost, missed time with relatives, lost schooling, and missed familiar routines. Allowing for therapeutic play honors these losses. We can recognize the trauma we've all been through and give ourselves and the children we care for a little grace. Rather than rushing to fill children with bits of missed information, we need to nurture them and practice slow pedagogy as everyone recovers (Egan et al., 2021). The pandemic can be viewed as a threshold or liminal space that allows us to reconnect with the natural world (Adams and Gray, 2023). Because today's children have missed out on many normal childhood social and language experiences, we must help them build soft skills and firsthand knowledge as a strong foundation for the rest of their learning journey. This is where loose parts fit beautifully. Open-ended play can provide an avenue for young children to try new ideas and practice authentic conversations, because their work gives meaningful context for learning.

Observations from a variety of settings illustrate ways to extend loose parts play beyond a collection of objects into interactive play with living things viewed through a constructivist lens. *Constructivism* refers to psychologist Jean Piaget's concept of a child's skill at creating coherent meaning from scattered facts and applying that information in spontaneous play, problem solving, and self-regulation (Forman and Kushner, 1983).

Living loose parts play is a catalyst for the spontaneous joy and lively conversations that can begin to address the language loss and social disconnection that has occurred throughout the years of the global pandemic and will continue to affect us all for years to come (Charney, Camarata, and Chern, 2020; Skar, Graham, and Huebner, 2022). Pandemic uncertainty has increased the need for social connections and emotional respite for adults and children. We all need playful learning to sustain our hearts and express ideas through work with our hands.

Acknowledgments

We collaborated on this project with a variety of people who are actively involved with living loose parts. As authors and practitioners, we want to elevate additional voices with rich ideas and diverse perspectives. We are grateful for inspirational conversations with Gary Bilezikian, president of Guidecraft, a producer of educational toys and children's furniture; Chris Whitmire, early childhood district administrator at Lewis Cass ISD in Indiana; Jennifer Kesselring, head of the preschool division of Riverfield Country Day School; Andrine Shufan, coordinator at Oklahoma State University Insect Adventure; Joe Rackley, environmental educator and pest survey coordinator for the state of Oklahoma; and Charlotte Wood-Wilson, retired Montessori professor from Oklahoma City University, whose ideas uplift, inspire, and challenge us at every encounter.

We have sprinkled true stories from the field throughout the text, sharing the author and program as available. We want to honor many voices and points of view as early childhood environmental educators continue to inspire each other.

- * **April Zajko, MEd, Nature-Based Educator, April's Teaching Tree, Vermont**

As a nature-based educator, I believe in bringing in natural loose parts that have been collected around my region. Even when teaching in a small, fenced area with limited provisions, we can bring in and enhance the space by regularly bringing in natural loose parts. Ideally, staff are able to go for walks in nearby nature with the children and bring materials back to the space for play and learning.

- * **Becky Gamache, Education Coordinator, Duluth Public Schools, Minnesota**

The outdoors are filled with loose parts. Whatever catches the children's eyes and imaginations when they are outside sparks deep, rich play. The ground itself can be a dinosaur pit or a cave or a fort, depending on how the children view it and use it.



* **Cherry Mays, Early Childhood Educator, public preschool prekindergarten, Oklahoma**

English poet William Wordsworth said, “Let Nature be your teacher.” This was one of the first quotes that adorned the wall of my classroom when I began teaching prekindergarten in public school in 2004. At the time, this reflected my belief that, as beings of Nature, we are drawn to and learn from the patterns, textures, smells, tastes, and sounds of our planet. This way of learning is as old as our species. As I grew as a professional and learned more about the brain, I asked myself: Why not use those well-established neural connections to teach young children? Bring Nature into teaching.

* **Donna Mackiewicz, master naturalist and environmental educator, California**

Living loose parts are materials from [natural items] that can be moved, carried, combined, redesigned, lined up, taken apart, and put back together in multiple ways. They can be used alone or combined with other materials. Loose parts encourage open-ended learning. There is

no set of specific directions for materials that are considered loose parts. The child is the direction. Even adults can sit with no preconceived notion of doing anything then discover there is so much to see if they truly open their senses to possibilities.

* **Megan Gessler, The Morton Arboretum’s Little Trees Early Learning Program, Illinois**

I feel that children create personal knowledge and understanding by interacting with the natural world, and that includes what you are calling living loose parts. How they touch, smell, see, hear, taste, or manipulate the natural loose parts around them builds upon their deep relationship and blossoming understanding of the natural world. Every interaction builds on their biophilic connection and strengthens their kinship with the natural world.

* **Marcos Stoltzfus, Carol Good-Elliott, and Rian Bylsma, Merry Lea Environmental Learning Center, nature-based preschool and kinderforest program, Indiana**

We see very little distinction between our loose parts options, but we do tend to encourage, rely on, and offer natural items and living loose parts. For example, while we do give empty spool reels, we more frequently give natural building blocks, pinecones, and walnut shells. We also encourage participants in some of our programs to discover their own loose parts (living or otherwise). We believe this ties in with a hyperlocal, place-based approach of “sit spots,” recurring practices where children (or adults) will spend time observing and participating in the same space over the course of a day, a week, a year, or longer. We view living loose parts as a natural way to connect learners with their environment, including local loose parts.

* **Nicole Root, Founder of Playscapes, Florida**

I used to work with children, but now I work with adults with dementia and other cognitive or physical challenges who are receiving long-term care. Because many of them are rarely able to get out and about into the real living world, I like to bring it to them. I like to think I help bring the outside in and more “life” into their day by offering them materials and objects that they would most likely not encounter otherwise.

* **Paola Lopez, Director of Kinderoo Academy, Florida**

At its core, the concept of living loose parts in early childhood education is all about embracing natural elements and resources that foster children’s creativity, imagination, and curiosity. *Living loose parts* are mainly defined to include not only plants and animals but also humans and even the living earth, such as fossils, rocks, light, and water, as manipulatives to promote observation and thinking. By incorporating living loose parts into our learning environments, our educators encourage children to engage in hands-on exploration and experimentation. Children are naturally drawn to living things and often express an innate sense of wonder and curiosity about the world around them. By providing opportunities for children to observe and interact with living things, we help nurture and sustain their sense of curiosity, leading to deeper learning and understanding.

* **Peter Dargatz, Kindergarten Teacher, Hamilton School District, Wisconsin**

Items of nature are essential to my classroom, both inside and out. We have a nature center in the classroom with a rotating set of natural items children can observe and manipulate. Similarly, they are sure to find a treasure trove of living loose parts on our daily outdoor adventures. These items offer spontaneous curiosity that is an essential element of place-based learning.

* **Sara Evans, Early Childhood Education Nature Specialist, Green Garden Metro Detroit, Michigan**

As a nature-oriented group of six early childhood facilities, we utilize living loose parts as a main focus of learning across our curricula. Because we are in an urban setting, there are challenges to making the spaces as close to nature as possible. But it is my personal view that immersion in nature isn't as important as exposure to as many elements as possible. The key is to provide familiarity with nature through living loose parts. We have full gardens at each site and use the steps of growing to explore, starting with seeds and then greenhouses in our lobbies, before moving plants outside, then using grown items for snack time. We even have wormeries where we put the leftovers. We also have hens at several of our locations and a Nature Explore certification.

* **Sheila Williams Ridge, Director of Child Development Laboratory School, Minnesota**

I think of living loose parts as those things that we may engage with while learning but that also require our respect and care. To me, living loose parts are not for manipulation and our own learning but to be approached with mutuality and intention—those things we can learn from, not just learn with. In our environment we talk about seeds and the importance of a seed to a species. We don't promote experiences in which you place seeds in plastic bags for them to mold and die; instead, we think about their needs and create an environment to help the seeds flourish. We are overjoyed when we see the sprouts emerge, and we cultivate children's learning by continuing to ask questions such as, "What do you notice?" "What do you think will happen next?" and "What do you think we could do to make the seed more successful?"

* **Heather Taylor, Founder, Director, and Teacher, Outside School, California**

[Living loose parts] are a giant part of our curriculum and a backdrop for everything we do. We're 100 percent outdoors in a regional park, so our entire classroom is alive.



Introduction

The potential of exploring living loose parts is nearly limitless. Consider the unique aspects of your particular surroundings. Involve children in the planning and implementation of how and what living loose parts might be added into your spaces. Let the exploration begin.

How This Book Is Organized

Welcome to *Loose Parts Alive*. We start by defining living loose parts and considering why teachers incorporate them into their programs. We share strategies to explicitly teach observation skills to help children notice little details that might otherwise be overlooked in nature. We share tips for incorporating plants and animals into your day and integrating language and literacy, STEM, and social development lessons.

CHAPTER 1: LOOSE PARTS ALIVE!

The wonder of loose parts play is that it allows children to use familiar materials in innovative new ways and to ask, “What else can this be?” Open-ended loose parts play follows the children’s interests. This approach to teaching and learning is fundamentally different from completing teacher-designed activities or crafts with loose parts.

By the term *living loose parts* we mean plants such as trees and flowers, animals such as pets and squirrels, as well as parts of living things such as leaves, cones, feathers, and shells. We also want to make a case for including



elements such as the living earth, light and shadow, water, fire, and wind, as well as rocks and streams. To us as teachers, it may feel risky not knowing exactly how children will engage with materials, but the payoff is worth taking a chance.

The benefits of incorporating living loose parts into our curriculum include twenty-first-century skills such as collaboration, creative thinking, communicating, flexible thinking, taking initiative, strengthening social skills, and practicing leadership. We also address ways to build biophilia and decrease biophobia in ourselves and the children we teach.

CHAPTER 2: SLOWING DOWN TO NOTICE NATURE

Today's fast-paced world can leave adults and even children stressed out and exhausted. There is calming power in nature. When we slow down and breathe deeply, we can shake off the frantic pressure to do more and instead be satisfied in doing enough. Clark (2022) recommends an unhurried approach to learning, savoring the present moment over rushing to prepare children for what's next. Slow pedagogy recognizes the collective uncertainty of the recent global pandemic years and the need for healing, promoting calm, and reducing anxiety. Our inborn sense of wonder and curiosity inspires us all to learn more about nature and the cultures around us when we slow down to discover the natural world.

CHAPTER 3: HONORING ALL LIVING THINGS

We humans feel a need to connect and communicate with other living things. We can intentionally teach respect for nature by, for example, putting spiders safely outside without killing them. Consider the example of the Texas state parks, which do not allow rocks to be moved to prevent disturbing microcosms in their ecosystem. We can help children connect to our local environments first and then expand into the larger world and introduce elements that children in our area may not otherwise encounter. Building careful observation and thoughtful reflection skills will serve children while they are in our programs and throughout their lives.

CHAPTER 4: PRACTICAL TIPS FOR INCORPORATING LIVING LOOSE PARTS

Living loose parts require special attention, care, and logistics. From lending libraries to caring for animals to getting parents on board to figuring out outdoor toileting, plan for the practical side of this approach. Additionally, children can share in the responsibility of watering plants and feeding animals. When we gather natural materials with children, we can teach them to notice where they were collected and return them later.

CHAPTER 5: PLAYING IT SAFE: DEATH, DECAY, AND REASONABLE RISK

Interacting with the natural world inherently includes risky play. Consider policies around stick play, working with fire, and how to conduct a benefit-risk analysis in your space. Additionally, explore the concepts of death, decay, and decomposition. As death is a natural part of life, how do we notice and talk about the cycle of life around us in our settings?

CHAPTER 6: CREATIVE THINKING AND TECHNOLOGY SPRINGBOARDS

Living loose parts naturally inspire creative thinking. We can start with the familiar materials already around us to create place-based, personal, and cultural connections. Exploring in natural settings has also been linked to greater self-esteem and reduced stress (Melson, 2013). As teachers, we have almost unlimited options in setting up our environments, asking questions, and offering props and ideas to extend children’s creative thinking.

CHAPTER 7: ASKING GOOD QUESTIONS, ASSESSING LEARNING

Living loose parts promote curiosity when we set the stage for unfamiliar or unexpected events to pique children’s interest. As teachers, we can plan *discrepant events*—surprising or unexpected outcomes—which act as an invitation for children to ask their own investigative questions, perhaps with plants, ants, worms, or goldfish, as we teach observation skills. We can assess children’s learning through authentic assessment using checklists, notes, recordings, photos, and conversations with the children. This data is useful in lesson planning and can be shared with stakeholders through parent conferences and progress reports.

CHAPTER 8: BRANCHING OUT WITH STEM

Children create working theories about how things work. Through play, they test those theories: “How many rocks will fit in my pockets?” “I wonder if I can catch that butterfly.” *Praxis* is literally putting our theories into practice. Science, technology, engineering, and math make exploring nature and the natural world possible. Children explore habitats and create classifications, such as things with wings and things with scales, using science. They measure, count, group, and compare with mathematics and use engineering to create architecture and solve problems. Using high-tech tools, such as digital cameras and tablet computers, and low-tech tools, such as pencils and sticks, they are making and testing working theories. When we provide open-ended materials and supportive attention, we are helping children build sturdy foundations for all their later learning.

CHAPTER 9: GETTING DRAMATIC WITH LIVING LOOSE PARTS

Living loose parts enhance language fluency by giving children something real and meaningful to talk about. Their excitement about learning bubbles up in conversations with you, their friends, and their families. Oral language inspirations include living things as well as representations such as puppets, drawings, and flannel-board story retelling. Written language invitations might include journaling, observing and recording, and story-making. Research continues to show that children use more expressive language and more creative storylines in their play when the props they use are less specific and more representative. For example, the Timpani toy study (Measimer, 2015) found children with a highly detailed cash register that made sounds focused on pushing the buttons and making the sounds. But children with a wooden block in the general shape of a cash register pretended to be shoppers and clerks and used the vocabulary associated with a store. In playgrounds that use natural materials rather than concrete, plastic, and metal, young children’s play becomes more creative and imaginative.



Unleash the **MAGIC** of Nature's Playthings

Imagine a learning space infused with life, where curiosity thrives and imaginations bloom. *Loose Parts Alive* invites you to unlock the extraordinary potential of living loose parts: plants, animals, and even your bodies!

Beyond blocks and buttons, discover how:

- the movements of a fish can spark STEM explorations.
- sun-soaked leaves can inspire vibrant artwork and investigations of light and shadow.
- a caterpillar's metamorphosis can nurture wonder and language.

This transformative guide, grounded in developmentally appropriate practice, Reggio Emilia's child-led explorations, Montessori's hands-on learning, and reverence for nature, empowers you to:

- integrate living loose parts seamlessly and confidently.
- embrace open-ended play, fostering critical thinking and creativity.
- nurture a deep connection with nature in children.
- witness the joy of child-led discovery unfolding organically.

Filled with field-tested activities and inspiring examples, practical tips, and stunning photography showcasing real-life implementation, *Loose Parts Alive* is an invitation to step outside the ordinary, embrace the boundless wonder of nature, and witness the magic of learning.

ARE YOU
READY TO
ignite
THE
spark?




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