



**Early Childhood**

# Playspace Design Toolkit





# Table of Contents

**03**

**Introduction**

**29**

**Playspace Design  
in Action**

**05**

**The Importance of  
Early Childhood Play**

**36**

**Sources Consulted**

**07** Key Benefits of Play

**09**

**Designing Your Early  
Childhood Playspace**

**10** Understanding Play Types in Early  
Childhood Outdoor Play Environments

**20** Guiding Principles

**22** Using a Design Framework

**23** Implementing Effective Early  
Childhood Outdoor Playspaces

**24** Preliminary Planning Assessment

# Introduction

The KABOOM! Early Childhood Playspace Design Toolkit provides recommendations for the development of outdoor early childhood playspaces that support children ages 0–5.



As the nature of childhood is evolving, it's becoming harder for kids to experience the simple pleasures of play and all of its benefits. Some children are spending an increasing share of their time on screens even at the earliest of ages and many lack access to safe places to play. Ensuring that high-quality playspaces are accessible in every community is essential to support healthy development

in kids, especially in early childhood. Addressing inequities in access is critical as communities facing disparities in physical and mental health are typically the same communities that have limited access to quality parks and playgrounds. This document suggests interventions that increase play opportunities, foster developmental milestones, and enhance mental and physical well-being.

**The goal of the toolkit is to inspire and support early learning practitioners and community members to transform their outdoor environments for children.**

These practical considerations are intended to make it easier to design and implement a plan for spaces designed for kids to explore, learn, and play. Informed by a literature review and shaped by insights from an 11-member advisory council, the toolkit offers scalable, evidence-informed recommendations aimed to influence national best practices and support implementers completing outdoor playspace projects designed for our youngest children.

## KABOOM!

### ABOUT

KABOOM! is the national nonprofit committed to ending playspace inequity — the reality that quality places to play are not available to every child, especially in communities of color. KABOOM! and our partners utilize the approaches in this Toolkit across our work, from designing developmentally rich, child-centric environments to engaging caregivers and community members in shaping playful, more equitable public spaces.

Since 1996, KABOOM! has partnered with kids and communities to create or transform 17,000+ playspaces and ensure that more than 12 million kids have equitable access to the critical benefits and opportunities that playspaces offer.

## Design toolkit readers will learn how to:

- **Prioritize** early childhood development in built and natural environments with field-tested best practices;
- **Design** spaces that respond to a range of needs and include design elements that facilitate play and learning for all children with diverse skills and abilities;
- **Consider** mental and physical health, ensuring that the playspaces contribute positively to children's overall well-being;
- **Integrate** meaningful connections to nature; and
- **Engage** community members in the design and implementation of playspaces.

## Navigating the Toolkit:

**This toolkit can be approached in multiple ways** depending on your project goals and your role.

Each section builds upon the previous one but may also be referenced independently for specific topics or areas of focus. Readers may choose to follow a linear progression for a comprehensive understanding, consult individual sections for targeted information, or take a portfolio approach to customize solutions across multiple playspace projects.

Whether you're starting from a blank slate, stewarding a beloved and well-used space, or working toward broader systems-level change across multiple sites or through policy, **this toolkit is designed to support you at any stage of outdoor playspace development.** Throughout the toolkit, readers will find playspace examples that illustrate concepts addressed.

## TOOLKIT FOR?

### WHO IS THIS

**This toolkit serves as a resource for decision-makers associated with private and public spaces that serve young children.**

This includes everything from nonprofit early learning spaces, like childcare programs, to public spaces that serve children of young ages, like parks, schools, and public housing developments. Whether you are a program director, staff member, parent, community member, or funder, this toolkit will help you think through the design, funding, and maintenance of early childhood playspaces.

#### **Direct Service Providers:**

- Early childhood educators and administrators
- Child care program directors
- Parks and recreation program directors
- Therapeutic support staff
- Early intervention specialists

#### **Systems-Level Stakeholders:**

- Early childhood funders and grant makers
- Local government agencies
- Local school districts and Pre-K programs
- Head Start programs
- School Boards and Boards of Directors
- Licensing and Accreditation Bodies
- Policy makers and municipal leaders
- Quality rating and improvement systems (QRIS) administrators
- Child advocacy organizations
- Public health officials

#### **Design and Implementation Professionals:**

- Landscape architects and planners
- Playspace designers
- Capital project and facility planners
- Construction managers
- School facility managers



The Importance of

# Early Childhood Play

Play is an engaging, complex, and multifaceted process that can profoundly shape a child's development.

## PLAY →

### DEFINING

**The word “Play” is used freely throughout this document, but what is “Play”?** Susan Sutherland Isaacs, English educational psychologist and promoter of the nursery school movement, stated that, “Play encompasses children’s behaviour which is freely chosen, personally directed and intrinsically motivated. It is performed for no external goal or reward, and is a fundamental and integral part of healthy development — not only for individual children, but also for the society in which they live.”

Early childhood play offers vibrant and diverse pathways for learning and exploration, contributing to a child’s cognitive, physical, social, and emotional well-being. Research has shown that children develop essential skills for navigating their world through various play types; from free play, where children lead their own adventures, to guided play, where adults provide subtle structure. Each type of play helps form the neurological and psychological foundations that support lifelong learning and social-emotional well-being.

The importance of play is especially critical during the first five years of life, when 90% of a child’s brain architecture is developed. During this period, rich and varied play experiences contribute significantly to the formation of neural connections that support executive function, language development, and social-emotional skills. Purposeful play environments designed specifically for ages 0–5 can optimize these developmental



windows by offering age-appropriate challenges and opportunities for exploration and learning.

Studies also demonstrate that when children interact with natural environments, they engage in richer forms of play that support essential developmental milestones. Nature-based play environments such as parks, green spaces, , or play-focused nature exploration areas not only enhance children's mental and physical health, but also foster academic skills and encourage risk-taking play.

Underscoring all of these considerations, inclusivity is paramount in designing your playspace. It is important for children of all abilities, regardless of medical diagnosis, to be able to access play environments with their peers so that they grow through play. "Inclusive [playspaces] aim to support equitable access to diverse play opportunities by providing various types of play [experiences] that enable children to challenge themselves at different levels, to enjoy quality play experiences and to have fun together." This does not mean that every single play opportunity must be accessible, but that there is access to a collection of experiences within the play environment that ensure each child feels welcome and included to the best of their ability and interests.

Despite these well-documented benefits, there has been a concerning reduction in free outdoor play for young children as preschool settings face increasing pressures to prepare children for the next academic level, and priorities focus

on academic readiness over the many benefits of play. Infants and toddlers may be most lacking in outdoor play , as they often experience outdoor time primarily through the support of a caregiver, rather than through self-directed physical interaction with outdoor play elements.

Cultural trends surrounding safety can also limit children's play opportunities. This includes shifts among parents and educators toward structured and supervised activities over free and risky play, where children test their physical and cognitive boundaries. While safety is essential, research supports the benefits of managed risk in play, showing that children who engage in challenging physical activities develop better problem-solving skills, resilience, and independence. Societal attitudes towards safety can create additional barriers to meaningful play experiences.

In some communities, quality playspaces are absent altogether because of patterns of racial exclusion, infrastructure challenges, and economic trends. Lower socioeconomic status, racial and ethnic minority, and rural populations have more limited access to playspaces in neighborhoods, parks, and schools compared to wealthier, white, and urban groups. Race, class, and location are significant factors when we consider a community's ability to access great spaces for play in early childhood. Local leaders can apply the design principles in this toolkit in ways that all kids, especially in Black and Brown communities and lower-income neighborhoods, have high quality opportunities for play, joy, and development.

## ACCESSIBLE DESIGN

Design that ensures access into the playspace, and often implies that the design is compliant with the American with Disabilities Act, but little more.

## INCLUSIVE PLAYSPACE

A playspace that goes beyond ensuring that the designed playspace is accessible. This type of playspace creates opportunities for children, regardless of their abilities or background, to freely engage in meaningful experiences where they can enjoy themselves and others while developing skills through play with their peers.

Considering these findings, it is critical that early childhood playspaces be thoughtfully designed to balance safety, development, joy, and equity. When children have access to high-quality play environments, especially those that embrace nature , promote exploration, and allow for manageable risk, they are better equipped to thrive. These approaches support holistic development and lay the foundation for lifelong learning, health, and resilience.

## Recognizing Developmental Needs Across the 0–5 Age Range:

Children between the ages of 0 to 5 experience rapid and varied development across physical, cognitive, social, and emotional domains. A newborn's experience

of the world is profoundly different from that of a 4- or 5-year-old, and their needs in an outdoor playspace reflect those differences. Infants may benefit most from sensory-rich environments and safe places for tummy time or supported sitting, while toddlers are gaining mobility and exploring independence through crawling, cruising, and early climbing. Older children in this age range begin to engage in more complex physical activity and imaginative social play.

Designing effective spaces for early childhood means recognizing and responding to this wide range of abilities and behaviors, creating layered opportunities that can evolve as children grow and ensuring every age group is supported in ways that align with their unique developmental stage.





## Key Benefits of Play

Play serves as a primary pathway through which young children learn about themselves, others, and their environment.

As you will find below, the many benefits of play are outlined under key domains of development, but it is important to recognize that children do not develop linearly and that play benefits the many ways children grow over time. A single play experience can simultaneously support multiple developmental domains — cognitive, physical, social, and emotional.

For example, drawing in the sand may strengthen fine motor skills, inspire creative expression, foster language

development, and emotional regulation through sensory engagement. Building with loose parts can promote spatial reasoning and hand strength while encouraging cooperation and executive function. Climbing a boulder may enhance physical coordination, risk assessment, and peer interaction as one child coaches another.

Research also highlights that play is a primary method through which children develop 21st-century skills such as collaboration, communication,

critical thinking, and creativity. These competencies are increasingly valued in modern education and contribute to better academic outcomes, deeper engagement, and a love of learning. In addition, play fosters flexible thinking, resilience, and problem-solving, which are vital tools for navigating real-world challenges.

With this integrated understanding in mind, the following section outlines key developmental areas supported by play.

### Physical Development

- Builds strength, coordination, balance, and motor skills
- Develops spatial awareness and improves eyesight
- Supports physical fitness
- Reduces the risk of obesity

### Cognitive Development

- Enhances problem-solving and critical thinking
- Develops creativity and imagination
- Supports language development and early literacy skills
- Improves executive function skills (such as attention, memory, impulse control)

## **Social- Emotional Development**

### **Supports relationship building**

- Develops social skills through peer interactions
- Enhances emotional regulation through play challenges
- Builds empathy through collaborative play
- Supports self-confidence through mastery experiences

### **Enhances community connection**

- Develops cultural awareness through inclusive playspaces
- Enhances communication skills through varied play interactions
- Builds community belonging through shared play experiences and spaces
- Supports identity development through diverse play opportunities

## **Educational Growth**

- Supports better academic outcomes
- Increases motivation and engagement in learning
- Nurtures 21st century skills such as, collaboration, communication, critical thinking
- Enhances curiosity and love of learning
- Aids in the transfer of knowledge to real-world contexts

## **Movement and Sensory Integration**

- Develops strength, balance, and coordination through varied physical challenges
- Enhances sensory processing through multi-sensory play experiences
- Improves body awareness and spatial understanding
- Develops both fine and gross motor skills

## **Health and Well-Being**

- Supports healthy activity levels and weight management
- Enhances sleep patterns through active outdoor play
- Develops body confidence and physical competence
- Improves overall physical resilience

## **Integrated Learning**

- Develops problem-solving skills through hands-on exploration
- Enhances creativity and innovative thinking through open-ended play
- Supports language development through social play and storytelling
- Builds executive function skills through complex play scenarios

## **Adaptive Thinking**

- Develops flexible thinking through varied play experiences
- Enhances risk assessment abilities through challenging play
- Supports scientific thinking through cause-and-effect exploration
- Builds spatial awareness through physical navigation



# Designing Your Early Childhood Playspace

Designing an outdoor playspace for young children requires more than simply selecting equipment. It's a holistic process that blends developmental goals, community values, and real-world site considerations.

**In this section, you'll explore four interconnected components that will support you in creating a space that is both playful and purposeful.**

The first subsection, **Understanding Play Types in Early Childhood Outdoor Play Environments**, introduces a set of core play types, adapted from the *Tool for Observing Play Outdoors* framework, and explains how design choices can encourage a range of developmental experiences.

Next, **Guiding Principles** outlines key considerations for creating inclusive, culturally responsive, and environmentally resilient playspaces that reflect the needs of children and their communities.

**Using a Design Framework** helps you translate these principles into site-specific plans by balancing practical constraints with your long-term vision.

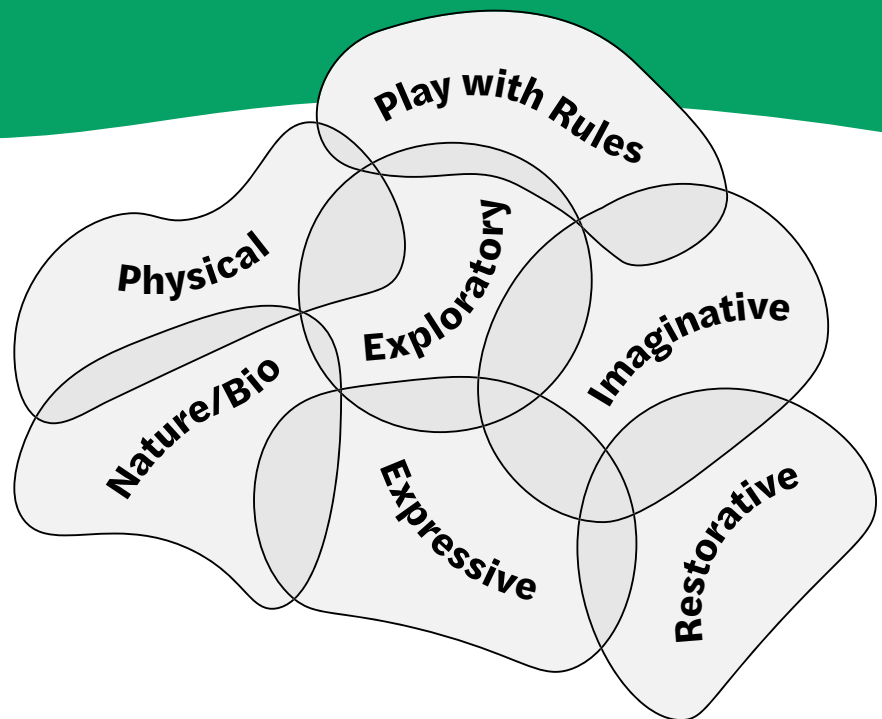
Finally, **Implementing Effective Early Childhood Outdoor Playspaces** walks through the concrete steps to move your project from concept to reality, including planning, permitting, programming, and evaluation.



Photo credit:  
Cynthia Gentry

# Understanding Play Types in Early Childhood Outdoor Play Environments

To design a playspace that truly supports early childhood development, it is essential to first understand the types of play you are aiming to support.



This section draws from the ***Tool for Observing Play Outdoors (TOPO)***, an established academic and industry framework, to define a set of core play types and explore how outdoor environments can be designed to encourage them.

Originally developed by Dr. Janet Loebach and Adina Cox, TOPO is a research-based observational tool used by designers, educators, and researchers to classify and assess children's play behaviors in outdoor settings. It identifies a broad range of play types and subtypes commonly

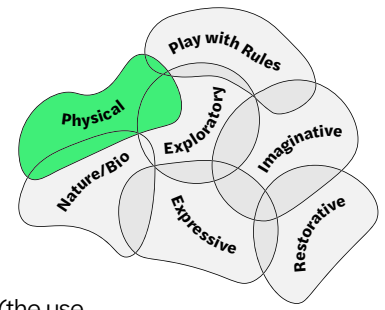
observed in nature- and play-based environments, providing a shared language for planning and evaluation.

With the early childhood population in mind, we chose to focus on the following play types from TOPO: **Physical Play, Exploratory Play, Imaginative Play, Play with Rules, Nature or Bio Play, Expressive Play, and Restorative Play**. In the subsequent pages, each play type is defined and paired with design strategies. Real-world examples of early childhood playspaces from the field are interwoven to show how multiple play types can overlap and

coexist in a single space. Together, these strategies support the cognitive, social, emotional, and physical growth that occurs when young children engage in outdoor play. The section concludes with a note on why Digital Play and Non-Play from TOPO are treated separately from the other TOPO play types described in detail below, as well as a set of complementary design considerations that can further enhance how we think about the design of outdoor play environments and holistic child development.



# 01 Physical Play



**This play type involves activities that engage children in physical movement and interaction with their environment.**

It includes activities that require gross motor skills (the use of large muscles), fine motor skills (the use of small muscles in hands, fingers, feet, and toes), and balance, as well as more dynamic and physical interactions such as running, jumping, climbing, spinning and rough-and-tumble play. Physical play not only supports physical development but also contributes to social, cognitive, and emotional growth through movement-based learning and exploration.

## DESIGN STRATEGIES

- **Create varied terrain** (e.g. hills, berms, uneven surfaces) that supports multiple types of movement and sufficient space to engage in gross motor play.
- **Integrate climbing and jumping** opportunities with different challenge levels and provide opportunities to move through space by spinning, turning upside down, and suspending your body from your arms.
- **Incorporate elements that invite physical exploration** like pathways (e.g. racing) and large open spaces (e.g. for tag, ball play).
- **Create one clear, solid surface path** to allow easy access into the play environment to ensure inclusive play opportunities for those with limited mobility and those who may be using a mobility device (e.g. wheelchair, walker).

## EXAMPLE

### HARPER'S PLAYGROUND AT ARBOR LODGE PARK

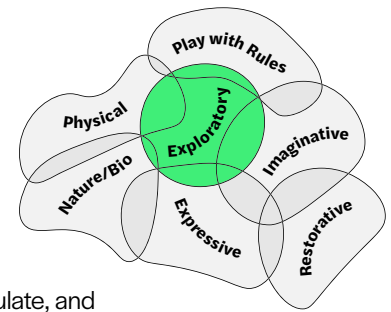
Portland, OR



Photo credit: Harper's Playground

The playspace incorporates smooth surfaces, circular seating, and flexible areas that have musical instruments and art that creates environments for imaginative play and promotes inclusive design. The playground designers incorporated the use of topographical changes and a varied use of surfaces that allow for both accessibility and sensory engagement. Play equipment that supports a range of users and promotes interaction between individual users, like multi-person spinner or multi-person swings, are key features of the playspace.

# 02 Exploratory Play



**This play type involves interacting with and discovering the properties of objects or environments, fostering curiosity and problem-solving skills.**

Children engage their senses to observe, manipulate, and experiment with materials, deepening their understanding of cause and effect, spatial relationships, and natural processes. This type of play encourages open-ended inquiry, allowing children to test ideas, make predictions, and develop foundational cognitive skills essential for scientific thinking and creativity.

## DESIGN STRATEGIES

- **Include sensory-diverse materials** such as sand, water, vegetation, and varied surfacing materials.
- **Create spaces** for digging, collecting, and observing natural elements.
- **Incorporate loose parts** that encourage building, like blocks, wood branches, bamboo poles, and milk crates, and experimenting, like wheeled toys, magnifying glasses, and silk play scarves.
- **Include adaptive tools**, like modified sand diggers or accessible height water tables, that all children can use to explore the diverse materials in the environment.

## EXAMPLE

### YMCA OF METROPOLITAN ATLANTA HEADQUARTERS EARLY LEARNING CENTER

Atlanta, GA

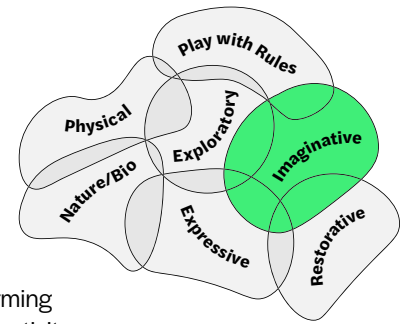


Photo credit: Cynthia Gentry

The YMCA's Outdoor Exploration Area provides access to tunnels and mounds — topographical features that support both physical and imaginative play. Musical instruments, designated water play areas, and a mud kitchen offer opportunities for expressive play and sensory-rich exploration. Children move directly from their classrooms into an environment shaped by natural materials and seasonal change. Features like flowering vines, full-sized trees, and ramps that rise to an elevated play surface encourage curiosity, movement, and connection to the outdoors.



# 03 Imaginative Play



**This play type invites children to create and explore new stories and scenarios.**

Through storytelling, acting out roles, or transforming objects into something else, children develop creativity, emotional expression, communication, and social skills. It also fosters problem-solving, negotiating roles with peers, and self-regulation as children navigate complex narratives and experiment with different perspectives.

## DESIGN STRATEGIES

- **Include open-ended props and materials** that can be used in multiple imaginative ways like buckets, pool noodles, silk scarves, tarp or blankets.
- **Design spaces that suggest but do not dictate themes**, such as a stage-like area or small structures.
- **Provide areas for fantasy-based role-playing**, such as high look out points, caves, or hidden nooks.
- **Design imaginative play surfaces at a variety of heights** to allow flexible choices for children to engage in like a mud kitchen with sinks at varying heights, for example, one of which allows for easy roll up access for a child using a mobility device.

## EXAMPLE

### MARVELOUSLY MADE

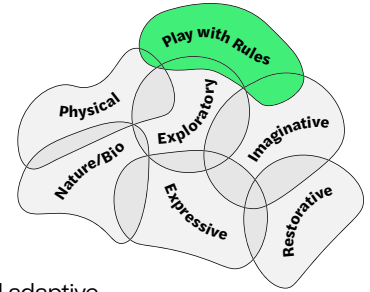
Helotes, TX



Photo credit: Marvelously Made

This early childhood playspace is thoughtfully designed to support imaginative and exploratory play, with children spending most of their day outdoors. Open-ended materials encourage pretend play and collaboration, allowing children to create stories and dramatic scenarios with scarves, costume materials, and flexible props. Shovels, ramps, trucks, and balls provide opportunities for experimentation, tinkering, and problem-solving together. The space fosters inquiry, collaboration, and child-led exploration, allowing children to guide their own learning and discovery.

# 04 Play with Rules



**This play type is just emerging in the 0–5 age range, typically appearing towards the older end of this age range, as it involves structured activities where children follow established guidelines or collaboratively create and modify their own rules.**

This play type promotes social negotiation and adaptive thinking. It can range from traditional games with fixed regulations, such as tag or hide-and-seek, to spontaneous, evolving games where children actively define and adapt the rules as they play. Engaging in rule-based play helps children develop self-regulation, fairness, cooperation, and an understanding of social structures, reinforcing critical thinking and decision-making skills in a fun and interactive way. By including some aspects of play with rules in the design, playspaces can grow with children across the early childhood years and beyond.

## DESIGN STRATEGIES

- **Design open space**, like a grass lawn, for small group games, ball play, or tag.
- **Include elements that encourage spontaneous game-making**, such as logs or stumps arranged in a circle or stepping stones arranged like familiar game boards, such as Candy Land.
- **Offer areas and storage for materials** like chalk, cones, balls or ropes to facilitate child-created games.
- **Ensure that communications methods** for those with alternative communication types are incorporated into this play type. This could include the use of pictures and sign language to explain how to play the game.

## EXAMPLE

### RIVERVIEW CHILDREN'S CENTER

Verona, PA

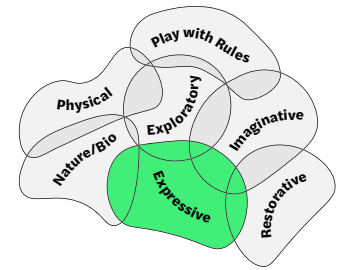


Photo credit: Riverview Children's Center

The Riverview Children's Center playground promotes an educational approach rooted in active learning in which children's interests determine learning pathways and hands on experiences are open-ended with support from adults. As the playspace was under construction, children were active members of the design process and continued learning through the construction process, observing cranes and concrete trucks at work. The new playspace features structures that encourage imaginative play with themed kid-sized buildings including a market and a cafe, surrounded by looping paths for wheeled toys which promote physical play at the same time. Notably, the site features a separate toddler play area providing age-appropriate equipment for the younger children and fencing designed to protect them.



# 05 Expressive Play



**This play type focuses on self-expression through music, art, movement, language, and social interactions, allowing children to communicate emotions, ideas, and creativity in diverse ways.**

It can include singing, dancing, storytelling, drawing, or engaging in wordplay, all of which help develop communication skills, emotional intelligence, and confidence. By experimenting with different forms of expression, children not only strengthen their cognitive and social abilities but also cultivate a sense of identity and personal voice in their interactions with others and the world around them.

## DESIGN STRATEGIES

- **Provide musical instruments** and sound-making elements such as chimes or drums.
- **Include spaces that support the use of open-ended art materials**, such as surfaces for drawing and painting.
- **Offer comfortable spaces for storytelling, singing, and social conversations** and provide gathering spaces for different sized groups (e.g. pairs, small groups, large groups). Consider all users of the spaces, such as pre-planning spaces for wheelchair parking.
- **Provide spaces that support performances**, like small stages, amphitheater-style seating, storage for props or costumes, or mirrors.
- **Include performance areas that are seamless with the main pathways** and ground surface like stage areas that do not require a step up to use.

## EXAMPLE

### PARENT INFANT CENTER

Philadelphia, PA

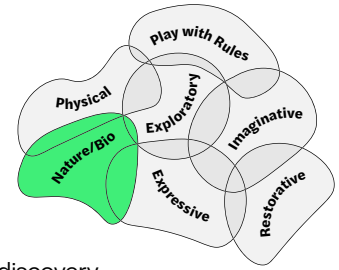


Photo credit: Parent Infant Center

The West Philadelphia Magic Circle Nature Playground features a mud kitchen, a children's garden, and areas created for playing in sand and dirt, building with loose parts, jumping among logs, and playing with big blocks. With a dedicated outdoor stage and spaces for creating art outside, children have ample opportunities to engage in expressive play. Overall, the playground is designed to connect children in urban environments with nature and is open to the community outside of school hours. A separate Tot Lot space for younger children incorporates a variety of features that encourage exploratory play, including a dirt box, sandbox, outdoor art easels, and designated areas for crawling, cruising, and riding toys.



# 06 Nature or Bio Play



**This play type involves interactions with elements in nature, encouraging environmental awareness and stewardship.**

It emphasizes free exploration of the natural world, discovery, and interaction with elements such as plants, animals, water, rocks, and natural landscapes. Nature play supports holistic development, including physical, social, cognitive, and emotional growth, by providing opportunities for children to learn through sensory experiences and unstructured exploration of their surroundings.

## DESIGN STRATEGIES

- **Incorporate diverse natural elements**, such as plants, trees, shrubs, rocks, water features, and topography that provide sensory experiences through color, movement, and texture.
- **Provide a variety of natural materials** to encourage children to build, dig, and experiment.
- **Design spaces that attract wildlife**, such as pollinator gardens or bird feeders and incorporate plants that provide seasonal variation (e.g. flowering or berry-producing plants, deciduous trees or shrubs).
- **Provide tools for children to engage in care-based activities** like watering plants or feeding insects.
- **Landscape different spaces to help encourage discovery and exploration**, including winding pathways, hidden nooks, and open areas.
- **Include elements such logs, ponds, or insect hotels** that provide habitats to encourage direct engagement with wildlife.
- **Ensure safe access to natural features**, like mud kitchens, water play areas, and garden beds, to foster hands-on learning and a connection to the natural world.
- **Consider providing adaptive tools** for all children to use while playing in nature like shovels with different size handles and containers of different sizes, allowing for ease of use by different users.

## EXAMPLE

### NATURE EXPLORATION AREA AT HERON'S HEAD PARK

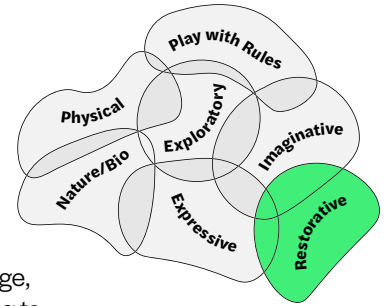
San Francisco, CA



Photo credit: SF Children & Nature, Maria Durana

This nature-based play area includes spaces for gathering as different sized-groups and a Create-with-Nature station that includes loose parts for imaginative and expressive play. Children of different ages can engage in risky play when climbing various size logs and boulders helping them to evaluate risks and build confidence in their physical abilities. The project was a collaboration between KABOOM! and a range of partners, including: San Francisco Recreation and Parks, the Port of San Francisco, San Francisco Children and Nature, Kaiser Permanente, and Bienenstock Natural Playgrounds.

# 07 Restorative Play



**This play type involves activities where children take a mental or physical break from active play.**

These restorative activities allow children to recharge, process experiences, and regain focus, contributing to cognitive and emotional well-being. It includes behaviors such as resting, retreating to a quiet space, engaging in reflective activities like reading, or observing others without direct interaction.

## DESIGN STRATEGIES

- **Include cozy spaces or nooks** that give children a space to retreat to and process frustration or distress and regulate themselves to be able to rejoin the play.
- **Provide comfortable seating, shaded areas, and natural features** like gardens or water elements to offer calming environments that support relaxation and sensory exploration.
- **Incorporate small, semi-enclosed areas** such as forts, dens, or treehouses, where children can withdraw from active play and enjoy solitude or quiet time.
- **Provide quieter play areas** that are separated from busier, active areas. Ensure that these quiet spaces are in multiple locations within the broader active play environment to allow quick access when the child

feels overwhelmed. Some of these spaces should be large enough for a caregiver to join the child to engage in co-regulation — the process of the caregiver supporting the child as they process large emotions that might feel overwhelming for the child.

## EXAMPLE

### FAMILY CONNECTIONS CENTER'S PORTOLA VALLEY PRESCHOOL

San Francisco, CA



Photo credit: SF Children & Nature, Maria Durana

Tucked beneath a freeway in San Francisco's Portola neighborhood, the Family Connections Center Preschool nature playspace transforms an unlikely strip of land into a vibrant, child-centered environment. Children navigate a winding main pathway and smaller branching trails that invite climbing, balancing, and sensory exploration across varied terrain. Natural elements like logs, native plantings, and mud kitchens encourage open-ended nature play, while a straw hut offers a quiet retreat, supporting restorative play. Mirror panels add opportunities for expressive, imaginative moments as well as identification of emotions, creating a dynamic space for both energy and reflection.



## \* Digital Play and Non-Play

The final two play types identified in the TOPO framework are **Digital Play** and **Non-Play**.

While we include these categories for completeness, we do not provide design strategies or case studies for them in this section. Digital Play is less emphasized due to ongoing concerns about screen time in early childhood, and additional guidance on supporting Non-Play activities such as transitions, self-care, and site functionality is included later in the toolkit.



\* In the TOPO framework, **Digital Play** is defined as children's interaction with digital tools and technologies in outdoor play environments. It can include direct device use, augmented play that enhances interaction with surroundings (such as using an app to identify plants), or embedded digital elements within the landscape like sensors or interactive prompts.

When thoughtfully integrated, digital elements can support creativity, problem-solving, and collaboration while encouraging children to explore new ways of interacting with their surroundings through sensor technology, music and sounds, and lighting. It's beneficial to consider how digital elements can enhance the structure or landscape, such as QR codes that offer play activation prompts for adults or provide tips for therapists working with children in the play area.. In general, when adding digital features to play

environments, ensure that they complement and enhance other play features and settings, rather than replace. As the integration of technology and interactive digital elements continue to make their way into educational and playspaces, we recognize the role that digital technologies can have as part of outdoor playspaces.

\* **Non-Play**, as defined by TOPO, are behaviors that children engage in while in outdoor environments that fall under the subcategories of self-care, nutrition, experiencing distress or exhibiting aggression, or is transitioning from one area to another. Outdoor spaces can and should be designed to allow children to take care of themselves, transition, and regulate their emotions.





## \* Additional Considerations:

The following are a handful of additional considerations that can support you to think holistically about ways to design spaces that engage children in many ways.



\* **Social play**, or co-play, involves interactions between children during play activities. They engage with peers in shared play experiences through simple parallel play, where children play alongside each other without direct interaction, to more complex cooperative play, where children collaborate, share goals, or engage in rule-based games. Social play can be seen occurring within the other play types above. For example, a group of children can be seen interacting socially while engaging in an imaginative play experience where they discuss characters they'll be and the plot of a scene. Social play supports the development of social skills, executive functioning skills, language skills, and self-regulation, contributing to children's socio-emotional and cognitive development.

skills, and learn how to assess and manage risks independently and can also be encouraged as part of any of the above play types.

\* Understanding **the spectrum of play** can help those that are seeking to design playspaces to facilitate both play and learning. Different types of play support different kinds of development, and thoughtfully designed playspaces can help create the conditions for all of them. For example, open-ended areas that invite free play can foster social-emotional growth, collaboration, and self-regulation, while zones designed to support guided play — such as spaces where adults can join children in focused, playful exploration — can encourage early academic learning through supportive interaction. By recognizing what types of play from the spectrum you seek to support in your space, design choices can help to facilitate a full range of play experiences.

\* **Risky play** involves children engaging in play experiences with a level of challenge that allows them to test their physical and emotional boundaries. It includes activities where children navigate and confront fears, such as heights, water, or unfamiliar environments. Risky play supports children's development by offering opportunities to build confidence, develop problem-solving



# Guiding Principles

Creating impactful playspaces for young children requires an intentional approach grounded in child development, cultural responsiveness, environmental sustainability, and long-term planning.

**The following principles offer guidance for designing outdoor environments that are inclusive, resilient, and deeply responsive to the needs of young children, as well as the communities that care for them.**

## Design for multifaceted child development

- **Child development is a complex, multifaceted process.** When designing playspaces for very young children, it's important to provide a variety of entry points and experiences that meet them where they are and grow with them. This includes opportunities for sensory exploration, physical challenge, social interaction, imaginative play and more, each of which supports different aspects of cognitive, physical, and emotional

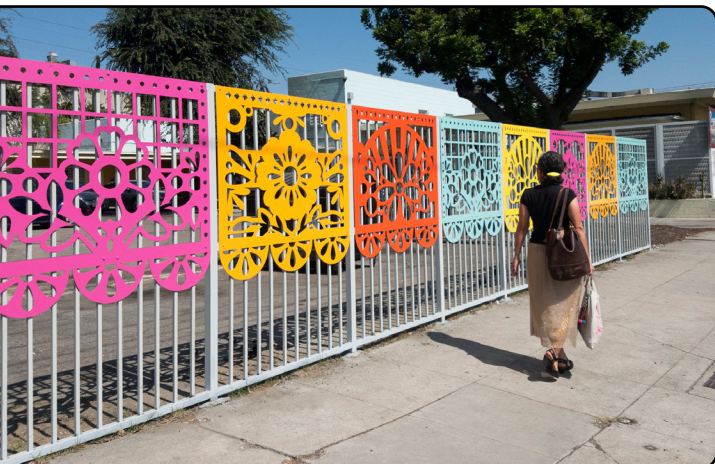
development. A well-designed environment adapts to individual needs, allowing all children to engage meaningfully, build confidence, and develop at their own pace.

- **Play can support emotional regulation and healing, especially for young children impacted by trauma.** When thoughtfully designed, play environments can foster a sense of safety and predictability while offering children space to express emotions, process experiences, and build resilience through joyful play.
- **Within the 0–5 age range, consider creating different spaces for infants (3 months–1 year old), toddlers (1–3 years old), and children (3–5 years old).** Consider the transitions between these zones to ensure they allow for fluid movement

and supervision, while maintaining developmentally appropriate scale, materials, and play features.

## Design for inclusion of all

- **Ensure that the full pathway to and through the playspace allows for easy roll access for all, considering surface material, slope and path width.** This allows for easy use of wagons, strollers, tricycles, and wheelchairs to and from the playspace.
- **Place play elements at different heights** to support the wide variety of sizes and reach ranges of children ages 0–5.
- **Design the overall playspace so that children can explore using their senses at their own pace.** Consider including a range of sensory input (high to low intensity) and place these throughout the playspace so that children can self-select their “just-right” sensory experience during play.
- **Include good color contrast within the playspace.** This supports those with visual impairment as well as depth perception which is in development between 0–5 years.
- **Incorporate tactile and visual communication cues to support communications** for all children within the playspace to support the play experience.



↙

This project by Proyecto Pastoral in the Boyle Heights neighborhood of Los Angeles features a culturally responsive decorative fence, inspired by papel picado — traditional cut paper Mexican folk art — that serves as a welcoming face for the organization to the surrounding neighborhood. Proyecto Pastoral was awarded a KABOOM! Play Everywhere grant to transform a parking lot into a community gathering space in collaboration with design partner, La Más.

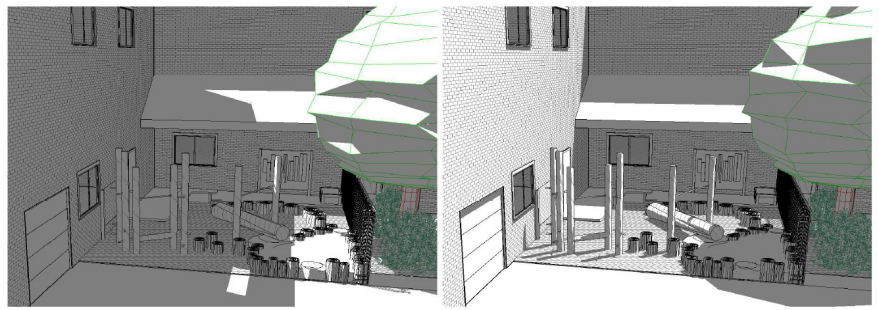


## Uplift diverse cultural perspectives

- **Community engagement is a vital part of designing inclusive, meaningful playspaces** that reflect the unique identities, values, and lived experiences of the people they serve. A shared visioning process creates space for diverse perspectives, ensuring the design supports a wide range of cultural values. Culturally significant playspaces reflect the community's values, choices, and ethos in the design choices that are made on site, be it a mural, color choices, or cultural symbols infused into infrastructure. Collaborate with families, educators, and community members to identify local traditions, themes, and priorities that can be thoughtfully woven into the play environment. By elevating community voices and aligning design goals with their aspirations, the playspace becomes a co-created space that is welcoming, relevant, and deeply rooted in place.

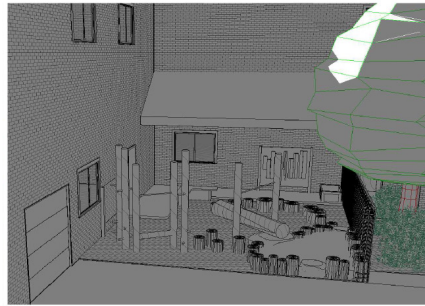
## Design for climate resilience and environmental stewardship

- **Consider climatic conditions when siting the playspace and selecting materials.** Incorporating features such as shaded areas for hot weather, permeable surfaces, drainage for rain or snow, and natural windbreaks acknowledges changing climatic conditions and ensures year-round usability.
- To promote environmental stewardship of your playspace and its surroundings, **consider using locally-sourced and climate-appropriate materials wherever possible** to reduce the environmental impact and support the regional economy. Long term viability of the playspace is dependent on the responsible management of natural resources and creating a maintenance plan that accounts for the site's unique environmental characteristics and changes over time.
- **Collaborate with local horticulturists, nurseries, or landscape professionals** to guide the selection of plants that will thrive in

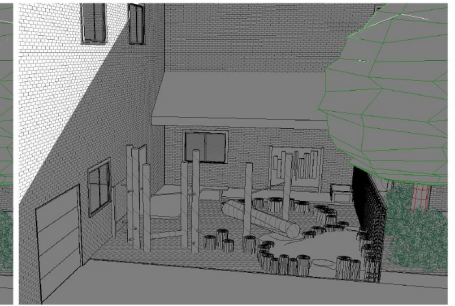


2 Solar Analysis 2 - Summer 11am

3 Solar Analysis 3 - Summer 2pm



6 Solar Analysis 6 - Winter 11am



7 Solar Analysis 7 - Winter 2pm



Solar analysis created by the Bernheim's CAPN staff to show the path of the sun on the specific site for a nature playground, which helps to illuminate the opportunities to introduce shade or provide additional sun exposure on a nature playground site. Photo credit: Bernheim Forest and Arboretum, Children at Play Network (CAPN)

your site's specific conditions. Prioritize native and climate-resilient species that are well-adapted to the region and require minimal maintenance. Choose plants that can withstand enthusiastic play — those that are non-toxic, durable underfoot, and even edible or sensory-rich to invite safe, hands-on exploration. Selecting the right mix of plant life contributes to environmental sustainability, supports biodiversity, and enhances the play experience for children through seasonal color, texture, and discovery.

## Design for whole-site functionality

- **When designing early childhood playspaces, it's essential to think beyond the play elements** themselves and consider how the entire site functions. The layout should facilitate smooth movement and easy transitions between areas, with well-planned access points and circulation paths. Providing amenities such as shaded seating areas for caregivers, designated spots for eating or drinking, and convenient

locations for handwashing or drinking stations enhances comfort and promotes well-being. Thinking through practical features, like stroller parking, waste disposal, and storage, ensures that the site is equipped to meet the everyday needs of children and adults. These thoughtful touches can make the difference between a site that is consistently well-used and one that feels less welcoming or functional.

## Align budget and resources with vision and longevity

- **Effective budget and resource planning are essential** to creating and sustaining outdoor play environments. Strategic funding allows for thoughtful decisions around design phasing, material selection, and long-term maintenance. Prioritizing durable, inclusive, and multifunctional elements can help maximize impact within budget constraints. Additionally, identifying diverse funding sources such as grants, community partnerships, or in-kind donations, can strengthen the financial sustainability of the playspace.



# Using a Design Framework

Designing effective outdoor early childhood playspaces involves understanding the site's physical, cultural, and socio-economic context, identifying the desired outcomes of key stakeholders, and thoughtfully integrating play types and design elements.

Like colors on an artist's palette, these components can be blended and balanced to create a vibrant and cohesive play environment that responds to children's diverse developmental needs.



Photo credit:  
SF Children & Nature,  
Maria Durana

## Understanding Your Site's Context

This design toolkit focuses on outdoor play environments, whether in built or natural settings. **Conducting a thorough site analysis of your site's physical conditions** including topography, drainage, soil conditions, existing vegetation, climate factors, circulation patterns, views, and its contextual relationships in the community, provides the project team with essential information about opportunities and constraints that will help shape the placement and integration of play types and elements.

## Identifying Desired Play

As previously described, different play types contribute to a child's growth, each fostering distinct developmental skills. **A well-designed playspace offers a variety of play experiences to accommodate diverse needs and creates an inclusive environment** which provides meaningful entry points for children of different ages, abilities, and interests. Rather than providing a prescriptive checklist, consider layering different play types to ensure the outdoor playspace is dynamic, engaging, and developmentally enriching.

## Incorporating Design Elements

**Consider existing and proposed design elements in the playspace** like surfaces, materials, structures, heights, enclosures, and spatial design to support multiple play types simultaneously. These components can create the building blocks for diverse play experiences when thoughtfully combined.

- Identify the development opportunity offered by this piece of equipment or space
- Identify how early childhood programming and associated playspace use will work on this site

# Implementing Effective Early Childhood Outdoor Playspaces

Designing and implementing outdoor playspaces for early childhood education requires careful planning, community involvement, and practical implementation steps to ensure success. A comprehensive design and planning approach involves several critical steps:

## 1. Engaging in a Preliminary Planning Assessment:

The following section guides readers through this step in a worksheet format. It's important to conduct a thorough assessment that includes vision setting, understanding user needs, concept development, implementation and funding support, and long-term maintenance and operations planning.

## 2. Permitting and Approvals:

Engage with local planning departments early and identify champions who can help guide the design and approval process. Ensure that you consult the Americans with Disabilities Act or other relevant statutes to ensure the space is accessible to children with special needs.

## 3. Pre-planning and Operations:

Assemble a diverse team of stakeholders including children, educators, administrators, parents, municipal planning staff and community members, to support both the project's design, launch, and its sustainable use over time.

## 4. Budgeting and Resources:

Develop a budget and funding plan that maximizes the value of play types and elements while staying within financial constraints. Prioritize elements that offer diverse and enriching play experiences.

## 5. Site Programming:

Design playspaces with the site's programming needs in mind, creating spaces that easily allow early childhood educators or other adults to utilize the environment to accomplish their goals. For instance, incorporating a water feature can enable teachers to introduce concepts like buoyancy through play or providing a shaded gathering area allows a local librarian to host a story time for toddlers and their families at the park.

## 6. Facilitate Physical Transitions:

Include transitional spaces between indoors and outdoors which encourage outdoor use in all weather conditions, such as coat and boot racks, ensuring that users can integrate outdoor play into daily routines seamlessly.

## 7. Documentation:

Keep notes and photographic documentation throughout the design, planning and implementation processes of your project. Gathering this type of information, from community engagement feedback to product and warranty information and maintenance plans, and keeping it on file can help with future endeavors, reporting out to funders, and storytelling.

## 8. Assessment and Evaluation:

Develop evaluation tools to measure whether the playspace meets educational and developmental goals, with a focus on adaptability based on the evolving needs of children and adults who use the space.

Preliminary

# Planning Assessment

This worksheet provides a structured approach to planning, developing, and sustaining vibrant outdoor play environments that support holistic child development while meeting the practical needs of educators, families, and communities. This worksheet is intended to be used by project team members and other stakeholders to create a well-rounded, effective playspace.



Photo credit:  
SF Children & Nature,  
Maria Durana



## Part 01 Understanding Your Site and Stakeholder Needs

### Site Analysis

Conduct an analysis of the existing site using a survey or site plan of the site from property maps or existing site plans. Measure the size of the space. Identify and map existing elements on the site including existing play elements, natural features, types of surfaces, grade changes including steps and topography, location of utilities such as water or electrical, access points, lighting, signage, barriers or hazards, or other notable elements or features.

#### Examples of stakeholders include:

- \* Children (ages 0–5)
- \* Teachers, caregivers, and support staff
- \* Program leadership
- \* Administrators
- \* Maintenance staff
- \* Parents and guardians
- \* Community members
- \* Other: \_\_\_\_\_

### Engage Your Community and Stakeholders

Begin by identifying meaningful ways to engage your community and stakeholders in the design process. This may include surveys, community meetings, design charrettes, informal conversations, or interactive activities with children. The goal is to better understand how people currently use the site, what they need from it, and any challenges they face.

Be intentional about making engagement inclusive and accessible. Consider how to reach underrepresented groups, including families who may not attend meetings due to work schedules, caregivers with language barriers, or individuals who may not feel comfortable in traditional engagement settings. Translate materials when needed, offer multiple ways to participate (in-person, online, or via text), and create spaces where all voices, especially those of children, caregivers, and community members who are often left out, can be heard.

Develop an understanding of the stakeholder's primary needs and desires in order to reflect those in the playspace design.

#### This could include:

- \* A fun, safe and engaging play environment for children
- \* A supportive space for educational programming
- \* An accessible and inclusive space for all children
- \* A site that requires easy maintenance and durability of play elements
- \* Opportunities for community engagement and shared use
- \* Other: \_\_\_\_\_

### Balancing Practical Needs and Developmental Goals

When designing outdoor playspaces for children, it is crucial to balance practical considerations with developmental and educational goals. Key concerns such as safety, regulatory compliance, staffing, and budget must be carefully managed alongside the goal of supporting diverse play experiences. Below are some of the most important considerations to address during the planning and design process.

#### Considerations:

- \* Safety and supervision
- \* Compliance with local zoning and regulatory requirements
- \* Budget constraints
- \* Long-term maintenance and upkeep
- \* Balancing structured and unstructured play opportunities

## Part 02 Concept Development & Site Plan

The concept design phase involves setting clear environmental, physical, and educational goals, ensuring the playspace fits within its community context and uses durable, environmentally friendly materials.

At the end of this phase, your design team should produce a concept-level site plan, which is a visual representation that incorporates the goals above into a proposed layout of the playspace. This plan includes zones, pathways, materials, and features, and should be refined through stakeholder feedback before implementation. You can see an example concept-level site plan on the next page.

### Examples of Environment / Physical Considerations and Goals:

#### \* Scale and Context:

Ensure the design fits within the surrounding community, reflects community cultural preferences, and meets the needs of all users.

#### \* Spatial Layout and Organization:

Create distinct zones for active play, quiet reflection, and educational activities.

#### \* Site Materials:

Use durable, safe, and sustainable materials that support varied play experiences.

#### \* Site Constraints:

Address challenges such as limited space, uneven terrain, or regulatory requirements.

#### \* Site Affordances:

Maximize natural features to support 'risky play' and enhance sensory experiences.

### Examples of Educational / Learning Domains and Goals:

#### \* Physical:

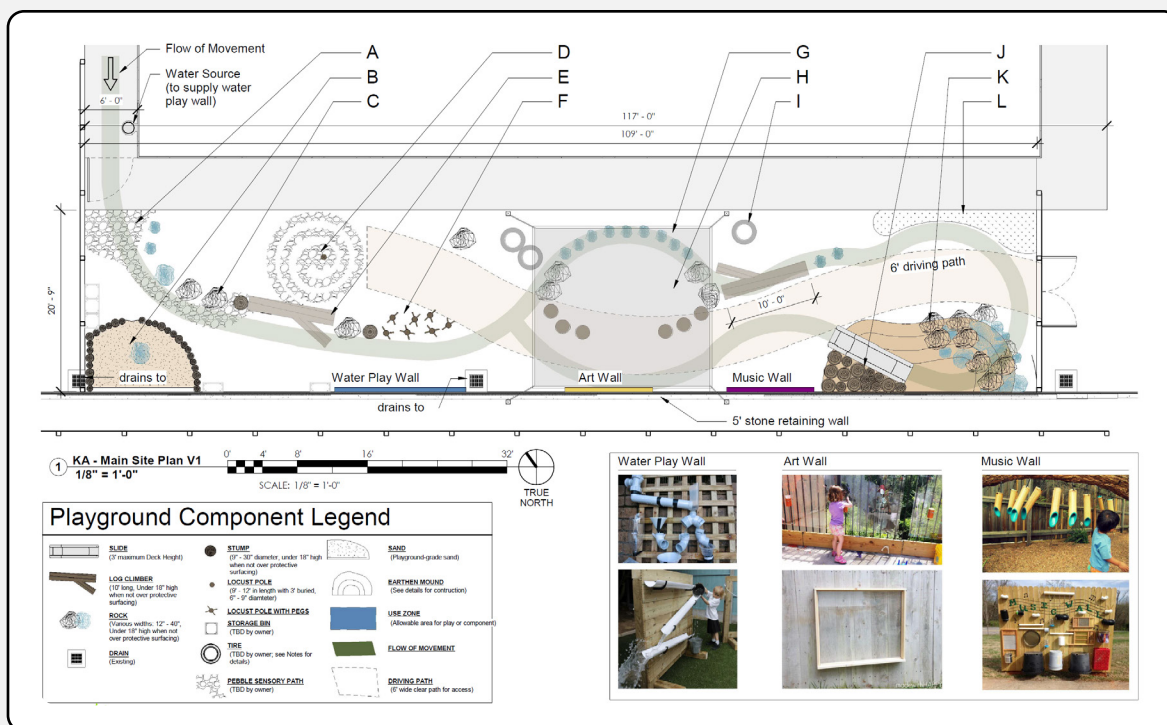
Promote gross and fine motor skills, balance, and coordination through varied physical challenges.

#### \* Social:

Design spaces that support both group interaction and quiet individual play.

#### \* Cognitive:

Encourage problem-solving, creative expression, and connections to the built environment and natural world.



A conceptual design site plan created by the CAPN staff, drawing upon preliminary sketches and ideas discussed in the participatory design workshop, for an early childhood education center in Louisville, KY.

Photo credit: Bernheim Forest and Arboretum, Children at Play Network (CAPN)

## Part 03 Implementation

The implementation phase transforms the vision for an early childhood playspace into a reality through careful planning, resource management, and community engagement.

### Key steps include:

- \* **Establishing** a clear budget and identifying funding opportunities.
- \* **Engaging** with the local planning department or consultant to review permitting and approvals.
- \* **Reviewing** licensing requirements, especially for child care programs. Programs should evaluate the site plan to ensure it aligns with local and state licensing regulations for outdoor environments.
- \* **Ensuring** safety and compliance with standards by consulting professionals and referencing guidance from trusted sources such as the U.S. Consumer Product Safety Commission (CPSC), American Society for Testing and Materials (ASTM), and the National Program for Playground Safety (NPPS).
- \* **Developing** detailed project plans to construct your playspace, including timelines, resource allocation, and community involvement strategies.
- \* **Planning** for staff and caregiver training to facilitate effective use of the playspace.



## Part 04 Maintenance & Operations

---

A well-maintained playspace is essential for sustaining its safety, functionality, and appeal over time. Developing a management plan at the outset of the project is a critical step in the process to ensure the playspace remains a vibrant and welcoming environment that continues to support children's growth and learning for years to come.

### Key steps include:

- \* **Allocating an annual budget and funding plan** for both ongoing needs and unplanned repairs or operational updates, for example ensuring selected materials, especially loose parts, are economical and easy to source and replace.
- \* **Research sample maintenance checklists** online and use them as a starting point to develop a custom checklist that reflects the unique features, materials, and needs of your playspace.
- \* **Observing how children use the playspace and seeking feedback** from caregivers, staff, and families to identify opportunities for improvement over time.
- \* **Creating a maintenance schedule** to ensure the playspace remains safe and well-managed.
- \* **Developing systems** for regular inspection, cleaning, and repairs.
- \* **Regular review of successes and challenges** to assess and improve the playspace.
- \* **Involving community members and stakeholders** in regular upkeep to foster a sense of ownership and stewardship.

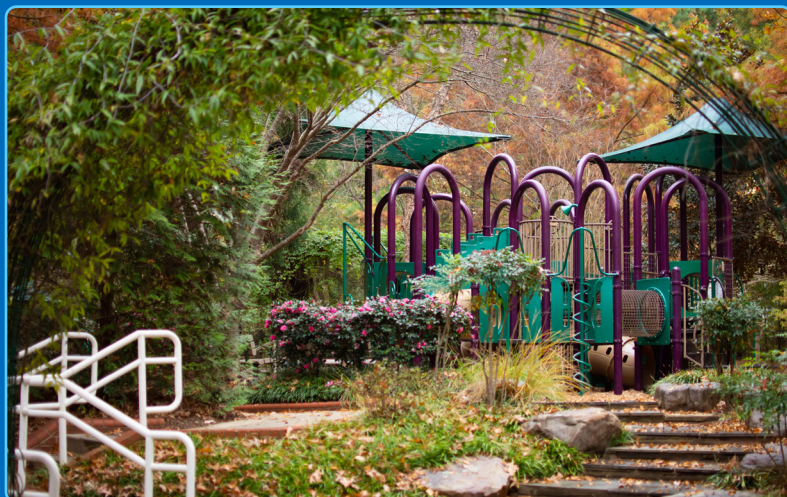
# Playspace Design in Action

## Examples to guide your design, planning, and implementation

This section includes practical, real-world playspace examples that demonstrate successful implementation across various geographies, contexts, and scales. These examples provide practical insights into how theoretical concepts translate into effective play environments and can provide inspiration for your playspace.







## KIDS TOGETHER PLAYGROUND AT MARLA DORREL PARK

Cary, NC

### Key Play Types:

**Physical / Exploratory / Imaginative / Nature**

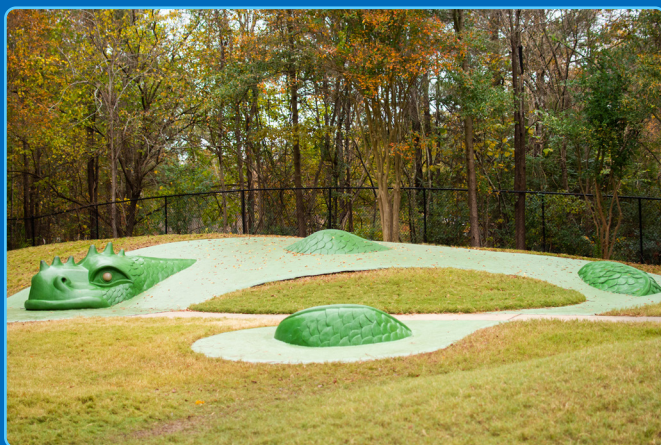
Ownership: Public park owned by the Town of Cary, NC, supported by the Kids Together non-profit

Completion Date: 2000

Features: Kids Together Playground (KTP) is an all-abilities playground and family play space designed by Robin Moore of MIG and Robb Harrison of Little and Little Landscape Architects. The park is rooted in universal and sustainable design principles, providing an accessible and inclusive multi-sensory environment for kids of all physical and mental abilities. Functional art pieces — such as the talking benches, the KATAL (Kids Are Together At Last) dragon sculpture, and bronze animal mashups — add whimsy to the play experience. Lush landscaping provides shade in the summer and encourages children to engage with nature. The Misting Garden offers gentle water play and sand play, including a roll-up accessible height sand table, offer sensory experiences.

Image Source: Kids Together, photographer Natalie Brickhill

[Click here to learn more.](#)



## RIVERVIEW CHILDREN'S CENTER

Verona, PA

### Key Play Types:

**Physical / Play with Rules / Imaginative**

Ownership: Private child care program

Completion Date: 2025

Features: The Riverview Children's Center playground promotes an educational approach rooted in active learning and peer interactions that involve making choices and following through on plans and decisions. Children use bike paths, a swimming pool, a sandbox, separate fenced-in nursery playground, dramatic play areas, and garden when in the outdoor play area.

Image Source: Riverview Children's Center

[Click here to learn more.](#)







## YMCA OF METROPOLITAN ATLANTA HEADQUARTERS — EARLY LEARNING CENTER

Atlanta, GA

### Key Play Types:

**Exploratory / Imaginative / Expressive / Nature**

Ownership: Private child care program

Completion Date: 2020

Features: The Outdoor Exploration Area at the YMCA of Metropolitan Atlanta's Leadership & Learning Center is a dynamic, nature-based environment designed to support six Head Start classrooms. Developed by Living Playgrounds in collaboration with Collins Cooper Carusi Architects, the play area was designed to provide children with the soothing presence of nature and use topographical changes, like nooks, an elevated treehouse, tunnels and mounds, to provide challenging areas for climbing, exploration, and interesting vistas. Natural materials, including plantings, wooden elements, and green-roofed structures, shift with the seasons, offering new sights, textures, and experiences throughout the year. The space was designed to foster creativity, sensory engagement, and a deeper connection to the natural world.

Image Source: Cynthia Gentry

[Click here to learn more.](#)



## NATURE EXPLORATION AREA AT HERON'S HEAD PARK

San Francisco, CA

### Key Play Type:

**Nature / Exploratory**

Ownership: Public park, San Francisco Recreation and Park Department

Completion Date: 2021

Features: This nature exploration area is a 12,000-square-foot playspace that encourages people of all ages to creatively engage with natural elements like logs, stumps, and boulders. Kid-designed and constructed out of repurposed natural materials, this nature-based play area includes spaces for gathering as different sized-groups and a Create-with-Nature station that includes loose parts for exploratory play.

Image Source: SF Children & Nature, Maria Durana

[Click here to learn more.](#)







## PARENT INFANT CENTER — THE MAGIC CIRCLE NATURE PLAYGROUND AND WEST PHILADELPHIA TOT LOT

Philadelphia, PA

### Key Play Types:

**Physical / Exploratory / Imaginative / Nature**

Ownership: Private child care program

Completion Date: 2012

Features: The West Philadelphia Tot Lot and Magic Circle Nature Playground at Parent Infant Center include a variety of zones designed to support creative expression, nature exploration, and hands-on learning. Children build and problem-solve in the “messy materials area” which is stocked with natural loose parts like sticks, stumps, and stones. A dedicated performance stage, outdoor art and music spaces foster expressive and dramatic play. The natural environment is enhanced by native plantings, shade trees, and winding paths that invite discovery. Uniquely, the playground is open to the broader community after school hours, providing neighborhood families with ongoing access to nature-based play opportunities.

Image Source: Parent Infant Center

[Click here to learn more.](#)



## FAMILY CONNECTIONS CENTER, PORTOLA VALLEY PRESCHOOL

San Francisco, CA

### Key Play Types:

**Nature / Exploratory / Expressive / Restorative**

Ownership: Nonprofit family resource center with preschool centers

Completion Date: 2020

Features: Family Connections Center was selected to join Low Income Investment Fund’s second cohort of the Connecting Children with Nature program, in which they engaged in a project to transform a narrow, underutilized strip of land beneath a freeway into a thriving natural play space for their preschool program. With a 99-year lease from the SF Municipal Transportation Authority, grant funding and technical assistance from LIIF, and the partnership with SF Rec & Park, Family Connections Center designed and built the new playspace with volunteers. The space features a main winding pathway and branching trails that encourage movement and sensory exploration across varied terrain. Children engage in nature play as they dig in the dirt, climb on logs, and experiment with mud kitchens. The straw hut provides a cozy, enclosed space for restorative play, allowing children to rest or retreat from activity. Mirror panels offer opportunities for expressive play and self-reflection, creating a well-rounded, nurturing outdoor environment that supports both active play and quiet moments.

Image Source: SF Children & Nature, Maria Durana

[Click here to learn more.](#)







## COVENANT CHILD DEVELOPMENT CENTER

Lubbock, TX

**Key Play Types:**  
**Physical / Imaginative / Expressive**

Ownership: Private child care program

Completion Date: 2016

**Features:** The outdoor play area at Covenant Child Development Center was the first Outdoor Learning Environment (OLE!) Texas site, a statewide initiative that promotes healthy, nature-based outdoor spaces at early childcare and education programs. Designed with the OLE 12 best practice indicators and support from The Texas Tech Coalition for Natural Learning and the Natural Learning Initiative from NC State University, the site features a variety of play zones. Children can explore loose parts for imaginative play, ride along a bike track, and engage in sensory experiences in a mud kitchen and sand play area. The space also includes a garden for hands-on learning, dramatic play areas, and an outdoor classroom gathering area, along with manufactured play equipment to support physical development. Site amenities, including an outdoor classroom, gathering area and a storage shed, are prime examples of the environment helping to facilitate or support programming, in this case making it easier for educators to teach lessons outdoors.

Image Source: Dr. Muntazar Monsur, Dr. Kristi Gaines, and the Texas Tech Coalition for Natural Learning

[Click here to learn more.](#)



## MAGICAL BRIDGE PLAYGROUND AT MITCHELL PARK

Palo Alto, CA

**Key Play Type:**  
**Physical / Imaginative / Expressive**

Ownership: Public park, managed by City of Palo Alto Recreation

Completion Date: 2015

**Features:** This is an inclusive outdoor community play space designed for all ages and abilities, including the 1-in-4 of us living with physical and cognitive disabilities, autism, visual and hearing challenges, as well as for the medically fragile and our aging population. With imaginative Play Zones including a musical laser harp and a fully accessible two-story playhouse, visitors engage in activities that help promote social interaction, kindness, and skill development.

Image Source: Magical Bridge Foundation

[Click here to learn more.](#)







## HARPER'S PLAYGROUND AT ARBOR LODGE PARK

Portland, OR

**Key Play Types:**  
**Imaginative / Nature / Physical**

Ownership: Public park managed by Portland Parks & Recreation

Completion Date: 2012

**Features:** This radically inclusive playground is designed to be physically, socially, and emotionally inviting for people of all ages and abilities. The playground has smooth surfacing to ensure everyone can get everywhere and to anything, especially natural features throughout the space. Adaptive site features are approachable and usable by a wide variety of users and include circular seating and flexible use areas so that visitors can engage socially. Additional features such as musical instruments and bronze sculptures encourage imaginative play.

Image Source: Harper's Playground

[Click here to learn more.](#)



## MARVELOUSLY MADE — THE SCHOOL FOR YOUNG CHILDREN

Helotes, TX

**Key Play Types:**  
**Nature / Expressive / Loose Parts**

Ownership: Private preschool

Completion Date: 2015

**Features:** Marvelously Made is an intentionally designed, child-centered learning environment that emphasizes outdoor, nature-based, and play-driven education. The outdoor space is an evolving, organic environment featuring a large garden, chickens, alpacas, sheep, and natural play elements. Children spend significant portions of their day outdoors, engaging in hands-on, exploratory learning that integrates art, sensory experiences, and animal care. The school's philosophy honors the developmental needs of each child through authentic, play-based learning.

Image Source: Marvelously Made

[Click here to learn more.](#)







## JOHN LEWIS ELEMENTARY SCHOOL

Washington, D.C.

**Key Play Types:**  
**Physical / Exploratory / Imaginative**

Ownership: Public School, grades PK-5

Completion Date: 2021

Hands on loose parts, water play, climbing, balancing, embankment play, drawing, circulating pathway, trees, plants, and logs

Features: The playgrounds at John Lewis Elementary School offer students thrilling play appropriate for each age level. The nature-based playground, intended for the youngest students at the D.C. public school, integrates natural elements with playground equipment made from organic Robinia wood. Designed by Natural Resources Design, Inc. and Perkins Eastman in collaboration with KOMPAN, the playground features wooden playhouses, an embankment slide, a splash table, a climbing net, and chalk board for children to enjoy a rich variety of imaginative play options. The nature-inspired play space is a treasured space that fosters social connection, physical play, and imaginations — both during and outside of school hours.

Image Source: KOMPAN Inc.

[Click here to learn more.](#)



## ACORN HILL WALDORF KINDERGARTEN & NURSERY

Silver Spring, MD

**Key Play Types:**  
**Nature / Imaginative / Expressive / Restorative**

Ownership: Private preschool and kindergarten program

Completion Date: 2023

Features: Acorn Hill's outdoor classrooms and nature-based play areas are central to its Waldorf early childhood approach. The playspace includes sand areas with tree stumps, climbing structures, swing sets, and open-ended materials like carts and planks to encourage imaginative play. As children engage in free play, such as creating shelters or digging in the sand area, social and language skills are being honed through cooperative play with their peers. Examples of restorative play can be seen as children swing in hammocks, prepare snacks outdoors, paint or take their rest time under the trees. Children engage in seasonal activities such as gardening, water play, and sledding. The environment supports child-led exploration and fosters a deep connection to the natural world.

Image Source: Acorn Hill Waldorf Kindergarten & Nursery

[Click here to learn more.](#)



# Sources Consulted

The resources listed below informed the development of this design toolkit. They include research studies, guides, and practice-based frameworks that shaped our thinking of high-quality early childhood outdoor environments. Each contributed valuable insights to the principles and recommendations presented in this toolkit.

**American Society of Landscape Architects.** Applying Ecological Design: Native Plants. 2025. <https://www.asla.org/nativeplants.aspx>.

**Golinkoff, Roberta Michnick, and Kathy Hirsh-Pasek.** *Becoming Brilliant: What Science Tells Us About Raising Successful Children*. Washington, DC: American Psychological Association, 2016. <https://www.apa.org/pubs/books/4441027>.

**Hirsh-Pasek, Kathy, Helen Shwe Hadani, Roberta Michnick Golinkoff, Andrés Henríquez, Brenna Hassinger-Das, and Jennifer M. Zosh.** *Where Global Science Meets Playful Learning: Implications for Home, School, Cities and Digital Spaces*. 2022. <https://cms.learningthroughplay.com/media/bp3ftezg/where-global-science-meets-playful-learning-implications-for-home-school-cities-and-digital-spaces.pdf>.

**Local Initiatives Support Corporation (LISC).** *Child Care Center Playgrounds Resource Guide*. Local Initiatives Support Corporation, 2020. <https://www.lisc.org/our-resources/resource/child-care-center-playgrounds/>.

**Loebach, Janet, and Adina Cox.** "Playing in 'the Backyard': Environmental Features and Conditions of a Natural Playspace Which Support Diverse Outdoor Play Activities among Younger Children." *International Journal of Environmental Research and Public Health* 19, no. 19 (2022): 12661. <https://doi.org/10.3390/ijerph191912661>.

**Loebach, Janet, and Adina Cox.** "Tool for Observing Play Outdoors (TOPO): A New Typology for Capturing Children's Play Behaviors in Outdoor Environments." *International Journal of Environmental Research and Public Health* 17, no. 15 (2020). <https://doi.org/10.3390/ijerph17155337>.

**Loebach, Janet, Robert Ramsden, Adina Cox, et al.** "Running the Risk: The Social, Behavioral and Environmental Associations with Positive Risk in Children's Play Activities in Outdoor Playspaces." *Journal of Outdoor and Environmental Education* 26, no. 1 (2023): 307–339. <https://doi.org/10.1007/s42322-023-00145-1>.

**Natural Learning Initiative.** *Preschool Outdoors: Best Practice Toolkit*. 2nd ed. Raleigh, NC: North Carolina State University, 2021. <https://naturalearning.org/preschool-outdoor-toolkit>.

**North American Association for Environmental Education (NAAEE).** *Early Childhood Environmental Education Programs: Guidelines for Excellence*. Washington, DC: NAAEE, 2016. [https://eepr.naaee.org/sites/default/files/eepr-post-files/early\\_childhood\\_ee\\_guidelines.pdf](https://eepr.naaee.org/sites/default/files/eepr-post-files/early_childhood_ee_guidelines.pdf).

**Ross, Tim, Kelly Arbour-Nicitopoulos, Ingrid M. Kanics, and Jennifer Leo.** *Creating Inclusive Playgrounds: A Playbook of Considerations and Strategies*. Toronto: Holland Bloorview Kids Rehabilitation Hospital, 2022. <https://hollandbloorview.ca/sites/default/files/2022-07/Creating%20Inclusive%20Playgrounds%20Playbook%20%28July%202022%29.pdf>.

**Schipperijn, Jens, Christian D. Madsen, Mads Toftager, Ditte N. Johansen, Ida Lousen, Thomas T. Amholt, and Charlotte S. Pawlowski.** "The Role of Playgrounds in Promoting Children's Health — A Scoping Review." *International Journal of Behavioral Nutrition and Physical Activity* 21, no. 1 (2024): 72. <https://doi.org/10.1186/s12966-024-01618-2>.

**Zosh, Jennifer M., Kathy Hirsh-Pasek, Emily J. Hopkins, Hanne Jensen, Claire Liu, Dave Neale, S. Lynne Solis, and David Whitebread.** "Accessing the Inaccessible: Redefining Play as a Spectrum." *Frontiers in Psychology* (2018). <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2018.01124/full>.





## **This toolkit was developed by KABOOM! with generous support from Overdeck Family Foundation.**

KABOOM! is deeply grateful for the passion, expertise, and generous guidance shared by our Advisory Council:

Jen DeMelo, Dr. Aaron Hipp, Ingrid M. Kanics OTR/L, Dr. Janet Loebach, Christy Merrick, Dr. Alissa Mwenelupembe, Rebecca Parlakian, Rashanda Perryman, Dr. Rachael Todaro, Meghan Talarowski, and Natalie Vega O'Neil. Their thoughtful contributions shaped the direction, depth, and integrity of this toolkit.

Written by Elizabeth Okeke-Von Batten and Liz Guthrie, whose vision, leadership, and technical knowledge brought clarity and cohesion to this effort.

To our reviewers, photo contributors, play advocates, and all those who supported this work in ways both big and small — thank you.

Layout and design by  
Anne Marie Lindemann.

Back cover image: Magical  
Bridge Playground at Mitchell  
Playground, Palo Alto, CA  
© Magical Bridge Foundation





