

The Importance of Outdoor Play and Its Impact on Brain Development In Children



UMKC School of Education's Edgar L. and Rheta A. Berkley

Child and Family Development Center

In Collaboration with UMKC Nursing Students

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Table of Contents

Book Overview	3
Outdoor Play and Brain Development	4
Benefits to Outdoor Play	5
Ages 3-9 Months	7
▪ Outdoor Play Allows an Infant to:	8
▪ Outdoor Play at Home Ideas	8
Ages 10-14 Months	9
▪ Outdoor Play Allows the Older Infant to:	10
▪ Outdoor Play at Home Ideas	10
Ages 15-24 Months	11
▪ Outdoor Play Allows a Young Toddler to:	11
▪ Outdoor Play at Home Ideas	11
Ages 2-3 ½ Years of Age	12
▪ Outdoor Play Allows a Toddler to:	14
Ages 3 ½ -5 Years of Age	15
▪ Outdoor Play at Home Ideas	16
School Aged Children	17
▪ Outdoor Play Allows a School-Aged Child to:	19
▪ Outdoor Play at Home Ideas	20
Large Movement in Grade Schools	21
Incorporating Outdoor Play at Home	22
Kansas City Metro Parks	23
Barriers to Outdoor Play at Home and Conclusion	24

Book Overview

The University of Missouri-Kansas City Registered Nurse to Baccalaureate Nursing Program (RN-BSN) collaborated with the Edgar L. & Rheta A. Berkley Child & Family Development Center (Berkley CFDC) to develop this resource as a tool for families, early childhood programs, teachers, schools and all advocates of young children. The purpose of this tool is to support and promote the benefits of outdoor play and or recess in our schools, preschools and early childhood programs. There is strong research that supports the connection between brain development and children having the opportunity to participate in recess during their school day. One example is how children develop their fine and gross motor skills as well as their dexterity and balance all through exploring and risk-taking and having fun on the playground. Games using balls help children develop anticipation and prediction skills. Figuring out which way will the ball roll or bounce relies on a child having many experiences with different shaped, sized and textured balls. In this booklet, ages zero to five and beyond are highlighted and connected to developmental milestones and learning pathways. When children have time to move and play outside they are developing pathways to the brain and learning. According to a Position Statement, written in 2001, by The National Association of Early Childhood Specialists in the State Departments of Education, “An alarming trend toward the elimination of recess during the school day is affecting many school districts throughout the United States. This policy is being implemented with the advent of increased school accountability and student testing procedures, and the belief that time could be better spent on academics. This disturbing phenomenon has no serious research to back it up, and is actually counterproductive to increasing the academic achievements of students (Skrupskelis, 2000).” The position statement goes on to say, “Professional organizations, educators, administrators, teachers, and parents are becoming increasingly concerned with this present trend. During the period of time commonly referred to as recess, learning occurs in ways not possible inside the regular classroom. An increasing body of research continues to indicate the benefits of unstructured play and specifically outdoor play for young children.” The National Association for the Education of Young Children (NAEYC) describes unstructured physical play as a developmentally appropriate outlet for reducing stress in children (Appendix 2). This period of time allows children the opportunity to make choices, plan, and expand their creativity (<http://files.eric.ed.gov/fulltext/ED463047.pdf>, accessed March 31, 2016).



Outdoor Play and Brain Development

Child's play is not just all fun and games; rather the act of play is a crucial component in the growth and development of the brain, body and intellect. Studies of how young people learn have proven, that children, especially, acquire knowledge experientially, through play, experimentation, exploration and discovery. Research shows us that many of the fundamental tasks that children must achieve, such as, exploring, risk-taking, fine and gross motor development and the absorption of vast amounts of basic knowledge, can be most effectively learned through outdoor play.¹ For example, when children move over, under, through, beside, and near objects and others, the child better grasps the meaning of these prepositions and geometry concepts. When children are given the opportunity to physically demonstrate action words as stomp, pounce, stalk, or slither, or descriptive words such as smooth, strong, gentle, or enormous, word comprehension is immediate and long lasting. The words are used and learned in context, as opposed to being a mere collection of letters. This is what promotes emergent literacy and a love of language. Similarly, if children take on high, low, wide, and narrow body shapes, they'll have a much greater understanding of these quantitative concepts, than children who are just presented with the words and definitions.² Learning by doing, creates more neural networks in the brain and throughout the body, making the entire body a tool for learning.³

¹ Johnson, J., Christie, J., Wardle, F. (2010). *The Importance of Outdoor Play for Children*. Retrieved from: <http://www.communityplaythings.com/resources/articles/2010/outdoor-play>

² Pica, Rae (2014). *Why Movement Matters*. Retrieved from: <http://www.communityplaythings.com/resources/articles/2014/why-movement-matters>

³ Hanford, C. (1995). *Smart Moves: Why Learning Is Not All In Your Head*. Retrieved from: www.communityplaythings.com/resources/articles/2014/why-movement-matters

Neural pathways are the connections that allow information to travel through the brain – the more pathways, the larger the brain. A newborn enters this world with their brain only 25 percent formed and 90 percent of human brain development occurs in the first five years of life. Recent research has shown us that the way a child’s neural pathways form is determined by the type of human contact and interactions they have in their early years. The neural pathways that are developed in a child’s first three years act like roadmaps to later learning.⁴

There is a growing amount of research indicating that physical activity activates the brain much more so, than by doing seat work. It is shown that sitting increases fatigue and reduces concentration, while moderate to vigorous movement feeds oxygen, water and glucose to the brain, optimizing its performance.

Benefits to Outdoor Play

Growing up many of us might have been told at some point to go outside and find something to do. Today, especially in a school setting it seems children are being told less and less to go outside, as they are encouraged to stay inside and study more. Our children seem to be getting fewer breaks from academics in order to achieve higher scores on testing and to meet standards for achievement. The issue with studying more is that the brain doesn’t have a chance to get a break, and recharge. In an educational institution, recess is a time where children should engage in unstructured play, which is not directed by adults, although supervised.⁵ Recess, or just outdoor play time is an opportunity for a child to freely play, or think the way they want to think, and not be directed by an adult or teacher. This type of thinking enables the child to use the brain the way he or she wishes to use it. Children are also physically active during play, and develop social, emotional and cognitive competencies.⁶

Although children love to move, and adults tend to think of them as constantly being in motion, children today are leading much more sedentary lives than their predecessors. According to research, children ages 2 to 5 spend close to 25 hours of TV time each week. In fact, watching television is the predominant sedentary behavior in children, second only to sleeping. The advent of computers and video games has also contributed to the decline in activity. A study from the Kaiser Family Foundation

⁴ De Voy, J. (2014). *Nurturing Neural Pathways*. Retrieved from: <http://wynyardchiro.com.au/nurturing-neural-pathways/>

⁵ Pellegrini, A. D., & Bohn-Gettler, C. M. (2013). The Benefits of Recess in Primary School. *Scholarpedia*, 8(2), 30448. doi:10.4249

⁶ Pellegrini, A. D., & Bohn-Gettler, C. M. (2013). The Benefits of Recess in Primary School. *Scholarpedia*, 8(2), 30448. doi:10.4249

determined that children ages 8 to 18 are spending more than seven and a half hours a day with electronic devices, the same numbers of hours some people spend at full-time jobs.⁷

According to research, there is one consistent observation that stands out among the studies of energy expenditures in young children: those under the age of 7 seem to expend about 20 to 30 percent less energy in physical activity than the level recommended by the World Health Organization. The Children’s Activity and Movement in Preschools Study (CHAMPS) determined that children enrolled in preschools took part in moderate to vigorous physical activity (MVPA) during only 3.4 percent of the preschool day. Getting children outside more benefits the children not only physically, but also allows the brain to recharge which, should produce greater results academically, socially and cognitively.⁸



⁷ Pica, Rae (2014). *Why Movement Matters*. Retrieved from: <http://www.communityplaythings.com/resources/articles/2014/why-movement-matters>

⁸ Pellegrini, A. D., & Bohn-Gettler, C. M. (2013). The Benefits of Recess in Primary School. *Scholarpedia*, 8(2), 30448. doi:10.4249

Ages 3-9 months

Infants three to nine months old experience important developmental milestones that incorporate four aspects: sensory, social, language and physical.

A normal part of brain development consists of the elimination of neurons (brain nerve cells) that are rarely or never used, which is why ‘windows of opportunity’ are time sensitive periods in a child’s life.⁹ Specific types of learning take place during the first eight months of life, this is the reason outdoor playtime and one on one engagement is so important. Interacting with infants exercises their brain and develops the memory needed to continue to use and keep brain cells. Brain cells for vision start rapidly developing between two to four months of age and peak in intensity at eight months, which is the time when babies take notice of the world around them.¹⁰ A baby’s brain absorbs a lot more than we realize as they try to make sense of the world through soaking up noises, sights and experiences around them. Outdoor play gives an infant the opportunity to develop their senses as well as introduces the environment for which they live in.



⁹ Forstadt, L.A., Graham, J. (2011). Children and brain development: what we know about how children learn. *The University of Maine*. Retrieved from: <http://umaine.edu/publications/4356/>

¹⁰ Cobb, Brenda. The importance and taking infants and toddlers outside. Retrieved from <http://www.claytonearlylearning.org/images/uploads/importance-of-taking-infants-toddlers-outdoors.pdf>



Outdoor Play Allows an Infant to:

- 👶👶 Listen to outdoor noises around them such as cars, airplanes, and other children at play
- 👶👶 Experience different weather patterns such as hot, cold, wind, sun, rain
- 👶👶 Stimulate their eyes by observing different colors and objects that are shiny, bright or dull
- 👶👶 Stimulate smells of all varieties
- 👶👶 Adjust their eyes to the various intensities of sunlight
- 👶👶 Crawl on and touch both rough and smooth textures such as grass, sand, concrete, leaves
- 👶👶 Grasp items such as sand and leaves using fine motor skills
- 👶👶 Inhale fresh air to decrease risk for germs

Outdoor Play at Home Ideas:

- 👶👶 Lay a blanket down and have tummy time outside
- 👶👶 Introduce grass, leaves and sand in their hands as they exercise fine motor skills of touching and holding these items
- 👶👶 Play with small colorful balls or blocks
- 👶👶 Face the infant toward children at play to stimulate their eyes
- 👶👶 Place the infant in a safely secured swing
- 👶👶 Play in a sand box
- 👶👶 Stimulate noises and point out the various sounds
- 👶👶 Push an infant in a stroller around the neighborhood or park



Ages 10-14 months old

Ten to twelve month olds are in the mist of leaving the infant stage and moving into the toddler stage. They are very inquisitive and exploration becomes an even greater part of their world. They begin playing, using their sense of touch, taste, and smell to experience their environment. They work on building relationships with others by learning how to give gentle hugs, and learning how to take turns.¹¹

An infant's first exposure to play is through parents, siblings and caregivers, with games like peek-a-boo and patty cake. Usually by ten months of age, the infant is crawling, pulling to stand, taking a few steps with assistance and by twelve months of age, taking those first few steps by themselves. They are reaching out within their surroundings to interact with others, playing with other children in games such as building blocks, throwing objects and gaining others attention by making sounds and gestures.¹²

Researchers agree that play is imperative to a child's development, improving the cognitive, physical, social and emotional well-being of the infant and child.¹³

¹¹ UMKC-School of Education's Edgar L. and Rheta A. Berkley, newsletter (2015)

¹² Gerber, R. Jason, Wilks, Timothy, and Erdie-Lalena, Christine, (2010) Developmental Milestones: Motor Development: *American Academy of Pediatrics* 31, 267-277. DOI: 10.1542/pir.31-7-267

¹³ Goldstein, Jeffrey, (2012), Play in Children's Development Health and Well-Being. Retrieved from: <http://opensource.wdka.nl/mediawiki/images/4/4e/Play-in-children-s-development-health-and-well-being-feb-2012.pdf>



Outdoor Play Allows the Older Infant to:

- 👶👶 Reduce stress, fear, anxiety, and irritability
- 👶👶 Increase joy, intimacy, self-esteem
- 👶👶 Make choices and options
- 👶👶 Teach relationships built on inclusion rather than exclusions
- 👶👶 Improve non-verbal skills and increase attention and attachment
- 👶👶 Improve gross motor exploration
- 👶👶 Increase balance and flexibility
- 👶👶 Increase the efficiency of immune, heart and endocrine systems
- 👶👶 Strengthen immune system and overall physical health.¹⁴

Outdoor Play at Home Ideas:






- 👶👶 Blowing bubbles and trying to catch them
- 👶👶 Peek-a-boo around trees, bushes, playground
- 👶👶 Explore in a sand box
- 👶👶 Tap on various outdoor equipment to stimulate noises
- 👶👶 Build with small blocks
- 👶👶 Play with colorful balls
- 👶👶 Stroller rides around the neighborhood naming objects you see
- 👶👶 Water play with cups and plastic containers

¹⁴ Early Headstart National Resource Center, 2013, Supporting Outdoor Play and Exploration for Infant and Toddler. Retrieved from: <http://eclkc.ohs.acf.hhs.gov/hslc/tta-systems/ehsnrc/docs/ehs-ta-paper14-outdoor-play.pdf>









15-24 months old

Fifteen to twenty months is a milestone for toddlers as they learn to do so much not only with their feet, but also with their hands and minds. In *15-18 months: Toddler Development* it states that your toddler is curious about everything and is keen to play, experiment and explore. It also goes on to state that play has a very important role during this age and it develops thinking, imagination and creativity.¹⁵ At this age, there are several different types of play that are important for the development of social and physical skills, which will in turn help develop your toddler's brain.¹⁵

Outdoor Play Allows a Young Toddler to:

-  Make friends and interact socially
-  Learn independently, as toddlers do not share at this age because they believe they are the center of the world and they think that everything belongs to them
-  See how things work by using open-ended toys such as blocks, pegs and cardboard boxes.
-  Use their imaginations and being creative through pretend play.
-  Engage with siblings and other children even if they are not directly playing with them.

Outdoor Play at Home Ideas:

-  Anything that incorporates pretend play and use of the imagination
-  Build with Legos, large blocks, or cardboard boxes
-  Climb through tunnels
-  Push anything with wheels
-  Explore nature, trees, grass, and cars driving by
-  Wagon rides through a park
-  Plastic cups with water
-  Build a fort outside

¹⁵ 15-18 Months: Toddler Development (2015), In raisingchildren.net.au. Retrieved from: http://raisingchildren.net.au/articles/child_development_15-18_months.html/context/563



2 to 3 ½ years of age

Two to three year old children love to have open, spontaneous outdoor play, which can be mistaken for being just fun and exciting. The act of play by a child stimulates brain development and function and has key roles in building the foundation, organization, and capabilities of the brain. Movement is the epicenter of children's lives and is crucial to all aspects of a child's development. Physical activity on regular basis allows a child to experience the benefits of movement to the fullest extent. Regular physical activity will lead to an assertive and capable child. "To deny children the opportunity to reap the many benefits of regular, vigorous, physical activity is to deny them the opportunity to experience the joy of efficient movement, the health effects of movement, and a lifetime as confident, competent movers."¹⁶

The stages of development of the brain mirror the stages of play in early childhood. Preschoolers learn much through their senses. Outside there are many different and wonderful things for them to see (animals, birds, and green leafy plants), to hear (wind rustling through leaves, a robin's song), to smell (fragrant flowers, and the rain soaked ground), to touch (a fuzzy caterpillar or bark on a tree), and even to taste (newly fallen snow or raindrops on their tongue). Children who spend a lot of time acquiring their experiences through television and computers are usually only using two senses, which can seriously affect their perceptual abilities. Cognitive

¹⁶ Henninger, M.L. (2009). *Teaching Young Children: An Introduction*. Retrieved from <http://www.education.com/reference/article/importance-motor-skills/>

contacts with the outdoors help children learn concepts such as cause and effect and making connections. They learn that the sun dries puddles and melts snow, and that wind makes things move. Preschoolers learn important science concepts as they explore the properties of natural objects and materials and notice how things are the same and different, experiment with using tools (for example, shovels and sticks) for different purposes, and predict if and where they will see worms after it rains. They gain spatial awareness (a foundational geometry concept) as they move their bodies through space in different ways and at different speeds, and observe the world from different perspectives, such as lying on their backs on a blanket, standing on top of a hill, or swinging back and forth in a swing or hammock.¹⁷ They notice different sounds and learn to tell them apart, which is a foundational skill for later literacy development.¹⁸ The two and half to three and half year old is very active, they are learning how to climb stairs, ride a tricycle, walk on their tiptoes, throwing or catching balls, and kicking a ball, among many other activities.



¹⁷Early Headstart National Resource Center, 2013. *Supporting Outdoor Play and Exploration for Infant and Toddler*. Retrieved from <http://eclkc.ohs.acf.hhs.gov/hslc/tta-stem/ehsnrc/docs/ehs-ta-paper-14-outdoor-play.pdf>

¹⁸Macintyre,C. (2012). *Early Intervention in Movement:Practical Activities Early Years Settings*. Retrieved from <http://www.ebilib.com>

Outdoor Play Allows a Toddler to¹⁹

- 👶👶 Increase creativity and imagination
- 👶👶 Enhance opportunities to make decisions, solve problems, and collaborate with peers
- 👶👶 Promote language and communication skills by having an increase in social interactions between children
- 👶👶 Improve awareness, reasoning, and observational skills
- 👶👶 Gain mathematical concepts
- 👶👶 Grasp science concepts
- 👶👶 Explore ordinary objects
- 👶👶 Enjoy their newfound abilities
- 👶👶 Begin to grasp spatial awareness (distance, speed, location, and direction)
- 👶👶 Know right from wrong
- 👶👶 Improve academics and literacy
- 👶👶 Nurture emotional and cognitive development
- 👶👶 Promote children to work together towards a common goal
- 👶👶 Decreased rates of obesity
- 👶👶 Foster interactions with peers and adults
- 👶👶 Improve Communication skills and vocabulary (as they invent, modify, and enforce rules).
- 👶👶 Number relationships (as they keep score and count)
- 👶👶 Gain social customs (as they learn to play together and cooperate).²⁰
- 👶👶 Play becomes more creative
- 👶👶 Outdoor play allows for expending energy

¹⁹ Gabbard, C. and Rodrigues, L. Windows of Opportunity for Early Brain and Motor Development. *Journal of Physical Education, Recreation & Dance*, 69(8), 54-56

²⁰ Pica, R. (2008). Take it Outside!. In *Early Childhood News*. Retrieved from http://www.earlychildhoodnews.com/earlychildhood/article_view.aspx?ArticleID=275

3 ½ - 5 years old

We have all heard the phrase, children are like little sponges and while this statement is meant to be funny, this is actually very true! Ages three and a half to five years old is a crucial time in a child's brain development for socialization and gaining independence. Between ages three and five, your child goes from believing that everyone sees the world the same way to understanding that there can be multiple points of view. Much of this learning and understanding takes place through play, which experts stress is a complex series of skills that take time to develop. As your child begins to play with others, s/he will learn via trial and error to cooperate and negotiate with other children through sharing and taking turns²¹. Along with gaining more socialization skills at this age, outdoor play will increase your child's motor functions and independence. During the preschool years, he/she is also developing executive functions, which control memory, timing, and sequencing—these abilities are essential for more complex physical activities²². As adults, we may view outside play as just that, play, when in actuality your child's brain development is growing to utilize the tools for essential day-to-day activities as well as gain independence, which will help with the adjustment of going to school. Outdoor play benefits your child into becoming more of an individual and the ability to learn how to express himself/herself.



²¹ *Your Child's Brain Development 3-5*. (2014). Retrieved from <http://www.enfagrow.com.sg/articles/science/your-child's-brain-development-3-5-years-0>

²² *Your Child's Brain Development 3-5*. (2014). Retrieved from <http://www.enfagrow.com.sg/articles/science/your-child's-brain-development-3-5-years-0>

Outdoor Play at Home Ideas

- 👩👧 Create a garden! If there is not much room then create a mini garden with small pots and seedlings.
- 👩👧 Nature “hike” with a scavenger list of items to find.
- 👩👧 Sidewalk chalk to create beautiful masterpieces!
- 👩👧 Have them help you clean, and wash the car or even have them wash their bikes!
- 👩👧 Gather old kitchen containers and create a kitchen outside!
- 👩👧 Collect twigs, branches and sticks to create makeshift campsite for “roasting” marshmallows and hot dogs!
- 👩👧 Collect pinecones for making peanut butter bird feeders. Two adventures in one! The kids can collect the pinecones, put the peanut butter on, add birdseed and wait and watch for new friends to feed!
- 👩👧 Glow sticks in water bottles make for a perfect game of evening bowling!
- 👩👧 A nature walk is a great way to enhance children’s appreciation of the natural environment. Ask them to tell you what they are seeing, hearing, and smelling.²³
- 👩👧 Set up an obstacle course with old tires, boxes, crates, tote boxes and tree stumps
- 👩👧 A “listening” walk makes for a wonderful sound discrimination activity
- 👩👧 Bring the parachute or an old sheet outside and play parachute games
- 👩👧 Play in a sandbox or water table and fill empty containers
- 👩👧 Take to a nearby park or venture out to a new park and run, play, roll down hills, play in the dirt, socialize with other children
- 👩👧 Play soccer, basketball or just throw a ball around
- 👩👧 Dance, fly a kite or ride bikes

²³ Pica, Rae (2014). *Why Movement Matters*. Retrieved from <http://www.communityplaythings.com/resources/articles/2014/why-movement-matters>



School-Aged Children

Outdoor play and brain development does not stop once a child enters into school, in fact, outdoor play is equally important for children of all ages. Research and studies show us that active, outdoor, free play can lead to improved academic performance. Research by Anthony Pellegrini, and Robyn Holmes shows that providing children with outdoor play breaks during the school day maximizes their attention to cognitive tasks.²⁴ Recess has many benefits in the cognitive, social-emotional and physical domains. First, children are less fidgety and more on-task when they have recess, and children with ADHD (attention deficit/hyperactivity syndrome) are among those who benefit the most. Secondly, research on memory and attention shows that recall is improved when learning is spaced out rather than concentrated. Recess provides breaks during which the brain can “regroup”. Thirdly, brain research shows a relationship between physical activity and the development of brain connections. Fourthly, on the playground, children exercise leadership, teach games to one another, take turns and learn to resolve conflicts. Lastly, in a free choice situation, children learn negotiation and conflict resolution skills in order to keep the play going.²⁵

²⁴ Goldstein, J.(2012). *Active Play and Healthy Development*. Retrieved from: <http://wwwtha.co.uk/wp>

²⁵ Licata, E. (2016). *Texas School Triples Recess Time and Sees Positive Results*. Retrieved from: <http://www.scarymommy.com/texas-school-triples-recess-time-and-sees-immediate-positive-results-in-kids/>

Recently, a school in Texas started giving four recess breaks per day. They have discovered that recess is a lot more than a free break after lunch; rather, free, unstructured playtime allows kids to exercise and helps them to focus better when they are in class. They have discovered after just few weeks, that children are following directions better, attempting to learn more independently, solve problems on their own and have had fewer disciplinary issues.²⁶



²⁶ Jarrett, O. and WaiteStupiansky, S. (2009). *Play, Policy, and Practice Interest Forum: Recess-It's Indispensable*, Retrieved from: <http://www.naeyc.org/files/yc/200909/On%20Our%20Minds%200909.pdf>

Outdoor Play Allows a School-Aged Child to:²⁷

- 🧑🧒 Increase the flow of blood to the brain. The blood delivers oxygen and glucose, which the brain needs for heightened alertness and mental focus
- 🧑🧒 Build up the body's level of brain-derived neurotrophic factor or BDNF, BDNF causes the brain's nerve cells to branch out, join together and communicate with each other in new ways, which leads to your child's openness to learning and more capacity for knowledge
- 🧑🧒 Build new brain cells in a brain region called dentate gyrus, which is linked with memory and memory loss
- 🧑🧒 Improves their ability to learn
- 🧑🧒 Increase the size of basal ganglia, a key part of the brain that aids in maintaining attention and "executive control," or the ability to coordinate actions and thoughts crisply
- 🧑🧒 Strengthen the vestibular systems that create spatial awareness and mental alertness. This provides your child with the framework for reading and other academic skills
- 🧑🧒 Help creativity



²⁷ Raise Smart Kid (2015). *The Benefits of Exercise On Your Kid's Brain*. Retrieved from: <http://www.raisesmartkid.com/3-to-6-years-old/4-articles/35-the-benefits-of-exercise-on-your-kids-brain>

Outdoor Play at Home Ideas:

- 👤👤 Sledding is a great sensory activity that activates the vestibular or balancing system
- 👤👤 Running outside and kick a ball around
- 👤👤 Jump rope, run, dance, play hop-scotch
- 👤👤 Go on hike
- 👤👤 Plant and maintain a garden
- 👤👤 Ride a bike
- 👤👤 Play tag or kick the can games with friends
- 👤👤 Build forts outdoors out of things found around the house



Gross Motor Movement in Grade Schools

In a comparison of outdoor play among local grade schools and Edgar L. & Rheta A. Berkley Child and Family Development Center [Berkley CFDC], it was discovered that children attending grade schools are only allowed 20-35 minutes of outdoor play a day. Whereas Berkley CFDC spends two hours a day participating in outdoor play, one hour in the morning and one hour in the afternoon. The amount of outdoor play at Berkley CFDC has demonstrated an improvement in learning and focus in the classroom. Schools are faced with state statutes that Berkley CFDC is not. These statutes require a certain number of minutes to be spent in the classroom against the recommendations of other health related organizations.²⁸ The American Academy of Pediatrics states that recess is “a crucial and necessary component of a child’s development.” One school in Texas fully believes this and began implementing four fifteen minute recesses daily, two in the morning and two in the afternoon. After approximately five months of trialing the increase in recess, teachers reported an increase in focus, attention span, and an ability to follow directions. The process of learning has become independent, problem solving has improved, and children are having less disciplinary problems; thus the classroom has become more optimal for learning.²⁹



²⁸ Yeager, Brent, personal communication, October 21, 2015.

²⁹Pawlowski, A. (2016). *Want kids to listen more, fidget less? Try more recess . . . this school did.* Retrieved from www.today.com

Incorporating Outdoor Play at Home

In the greater Kansas City area there are many wonderful parks and trails to explore. A very well-known and beautiful park is Loose Park located at 5200 Wornall, and has just over 74 acres of beautifully landscaped grounds. Loose Park is a wonderful place to enjoy outdoor play. Another option for parents to get their children outside is Brush Creek Greenway Park. Brush Creek Greenway Park is a wonderful option; comprised of over 258 acres of park and runs along Brush Creek from Brookside Boulevard all the way to the Blue River Brush Creek Greenway Park trail and allows parents to participate on several different levels of outdoor play. Lastly, acres upon acres of land are not necessary to get children out to play. The Kansas City Parks and Recreation also has numerous smaller parks such as the Harrison Street Park located at Brush Creek and Harrison which has 0.69 acres or Theis Park at 47th and Oak which offers 13.81 acres.³⁰ Kansas City is very blessed to have so many well-kept parks at our convenience. Getting children involved with more outdoor play and having the resources to do so is valuable to their overall health.



³⁰KC Parks. (2015) In Kansas City Parks and Recreation. Retrieved October 25, 2015 from <http://kcparks.org/>

Kansas City Metro Parks

Park	City	Amenities
Brookside Park-Brookside Blvd & E. 54th St	Kansas City	tennis courts, baseball diamonds, sand volleyball
Gillham Park-Gillham Rd 39th & Brush Creek	Kansas City	playground, wading pool, trail, tennis court, baseball diamond
Loose Park-5200 Wornall	Kansas City	16 shelters, garden center, lake, playground, tea room, tennis
Macken Park-Clark Ferguson & Howell Dr	Kansas City-North	baseball and soccer fields, tennis courts, 2 playgrounds, shelter
Penguin Park-N.Vivion Rd & N.Norton Ave	Kansas City-North	shelters, large fiberglass animals, playground, fountains
Platte Purchase Park-NW 100th St Platte Purchase Dr	Kansas City-North	trail, playground, soccer/baseball fields, shelters with grills
Ad Astra Park-8265 Maurer Rd.	Lenexa, Ks	Shelter house, pool, playground, jogging/walking Trails
Little Mill Creek North-14000 W. 79th St	Lenexa, Ks	playground, soccer fields, jogging/walking Trails
Sar-Ko-Par- W. 87th St	Lenexa, Ks	shelters, pool, tennis/basketball courts, playground, trails, lake
Antioch Park-6501 Antioch Rd	Meriam, Ks	2 Lakes, rose garden, playgrounds, nature area, hiking
Ernie Miller Nature Center-909 Hwy 7	Olathe, Ks	Walking/nature trails, ponds and streams, live animals
Overland Park Arboretum-8909 W.179th St.	Overland Park, Ks	Natural ecosystems, botanical gardens, trails, green space
Shawnee Mission Park-7900 Renner Rd	Shawnee, Ks	Playgrounds, ponds, lake with beach for swimming, fishing, canoeing
Legacy Park-1201-1501 Legacy Park Dr	Lee's Summit, Mo	22 acre lake, disc golf course, fishing dock, athletic fields, amphitheater
Wilbur Young Park-1100 SE Adams Dairy Pkwy	Blue Springs, Mo	6 tennis courts,4 sand volleyball courts, disc golf, fishing, playground
Waterfall Park-4501 S.Bass Pro Dr.	Independence, Mo	18 large playground, small rock wall, lake, trails, waterfall, picnic area

Barriers to Outdoor Play at Home

Our culture is moving away from outdoor play and children are spending excessive time watching television shows, playing on their tablets or phones, and playing video games. Today children's lives are more and more contained and controlled by small apartments, high-stakes academic instruction, schedules, tense, tired and overworked parents, and by fewer opportunities to be children.³¹ Parents are more afraid of letting children roam in a world of heavy traffic, violence, and reports of missing children, than they were twenty years ago. Boundaries for kids used to be measured by blocks or by miles, now the boundaries for most children are the front yard. For many children, the only outdoor play that they receive is at adult managed sporting events.

There is considerable room for improvement in parent-supervised outdoor play, opportunities for infants, toddlers, preschool and school-aged children. Improvements have numerous benefits for young children's physical health and development. Parents are the most important role models and decision makers for their children. They need to be aided and empowered in order to provide ample outdoor active play opportunities for their young children.³²

Conclusion

There is an alarming trend toward limiting outdoor play and or recess during the school day. As advocates of young children we need to share the many important and positive aspects of playing outside and advocate for ample recess opportunities for children. The act of play is a crucial component in the growth and development of the brain, body and intellect. Studies of how young people learn have proven, that children, especially, acquire knowledge experientially, through play, experimentation, exploration and discovery. It is important to understand that many of the fundamental tasks that children must achieve, such as, exploring, risk-taking, fine and gross motor development and the absorption of vast amounts of basic knowledge, can be most effectively learned through outdoor play.

³¹ Johnson, J., Christie, J., Wardle, F. (2010). *The Importance of Outdoor Play for Children*. Retrieved from: <http://www.communityplaythings.com/resources/articles/2010/outdoor-play>

³²Tandon, P., Zhou, C., Christakis, D. (2012). Jama Pediatrics: Frequency of Parent-Supervised Outdoor Play of US Preschool-Aged Children. *Arch Pediatr Adolesc Med.* 2012;166(8):707-712. doi:10.1001/archpediatrics.2011.1835.