

DISCOVER ***INCLUSIVE*** PLAYGROUNDS



A GUIDE FOR PLAYGROUND USERS

Discover Inclusive Playgrounds

<i>Introduction</i>	3
<i>Definition of Inclusion</i>	4
<i>The Problem</i>	5
<i>Importance and Benefits of Play</i>	5
<i>Free Play</i>	6
<i>Americans with Disabilities Act of 1990 (ADA)</i>	7
<i>Starting Point for Accessibility: 2010 Standards for Accessible Design, Play Areas</i>	7
<i>What is an ADA-Compliant Playground?</i>	9
<i>What is an Accessible Playground?</i>	9
<i>What is an Inclusive Playground?</i>	10
<i>Accessible Design vs. Universal Design</i>	10
<i>Principles of Universal Design</i>	11
<i>Playground Rules</i>	12
<i>For Playground Owners</i>	15
<i>For Physical, Occupational, and/or Recreational Therapists</i>	16
<i>For Teachers and Schools</i>	17
<i>For Parents</i>	19
<i>For Parents or Caregivers with Disability</i>	19
<i>Funding Resources</i>	21
<i>Highlights of Inclusive Playground Initiatives</i>	23
<i>References</i>	25
<i>Resources</i>	27

Introduction

Children are constant learners, and many of their learning experiences occur during playtime. An extensive body of research has proven that outdoor play stimulates the development of speech, cognition, gross motor, fine motor, and social skills. Playgrounds and well-designed playground activities can create opportunities for collaborative play and social interaction, triggering such child development.

The truth is that not all playgrounds are created equally. Some playgrounds are not accessible or inclusive, while others may lack adequate and consistent maintenance. These types of playgrounds are not supportive of learning experiences through play. It is important that playgrounds and other potential public play spaces are inclusive of all, including children, parents, grandparents, and caregivers with varying physical conditions and abilities.

Throughout this guide you will find evidence of how playgrounds support child development, the importance of inclusive design, and resources on inclusive playgrounds. This guide provides information that will help you create learning environments at playgrounds from both design and usage perspectives. The information is specific and tailored to teachers, administrators, parents, caregivers, recreation specialists, and health professionals that utilize playground settings for emotional, cognitive, and physical child development.



Definition of Inclusion

*Inclusion*²⁶ assumes that all children, regardless of ability or disability, have the right to:

- Be respected and appreciated as valuable members of the community
- Fully participate in all activities
- Interact with peers of all ability levels in opportunities to develop friendships and learn and respect differences

Examples of levels of participation include:

- **Physical access:** The physical environment is accessible to all comers; no supports for participation are necessary. For instance, there is no special entrance or door for people with disability because the common door is accessible to all. The furniture has enough space around it to be navigable by anyone, including those who use devices for mobility such as wheelchairs, walkers, and canes.
- **Programmatic access:** Physical access and communication resources are accessible in multiple formats to meet the needs of people with diverse abilities. For example, written, verbal, and hands-on instructions are available. To ensure programmatic access, supports may be needed (e.g., volunteers and/or technology) to ensure that individuals with disabilities can participate in all program-based activities. Beyond immediate access and provisions at a facility or event, programmatic access also includes marketing, promotion, and other awareness and outreach activities that ensure all community members are aware of and feel welcomed to programs, facilities, and events.



The Problem

There is an extensive amount of evidence that children with physical limitations or developmental delays are largely excluded from participation in local outdoor activity areas, including playgrounds²⁸. Inclusive playgrounds represent an opportunity for enjoyable, safe, and supportive learning environment in the outdoors.

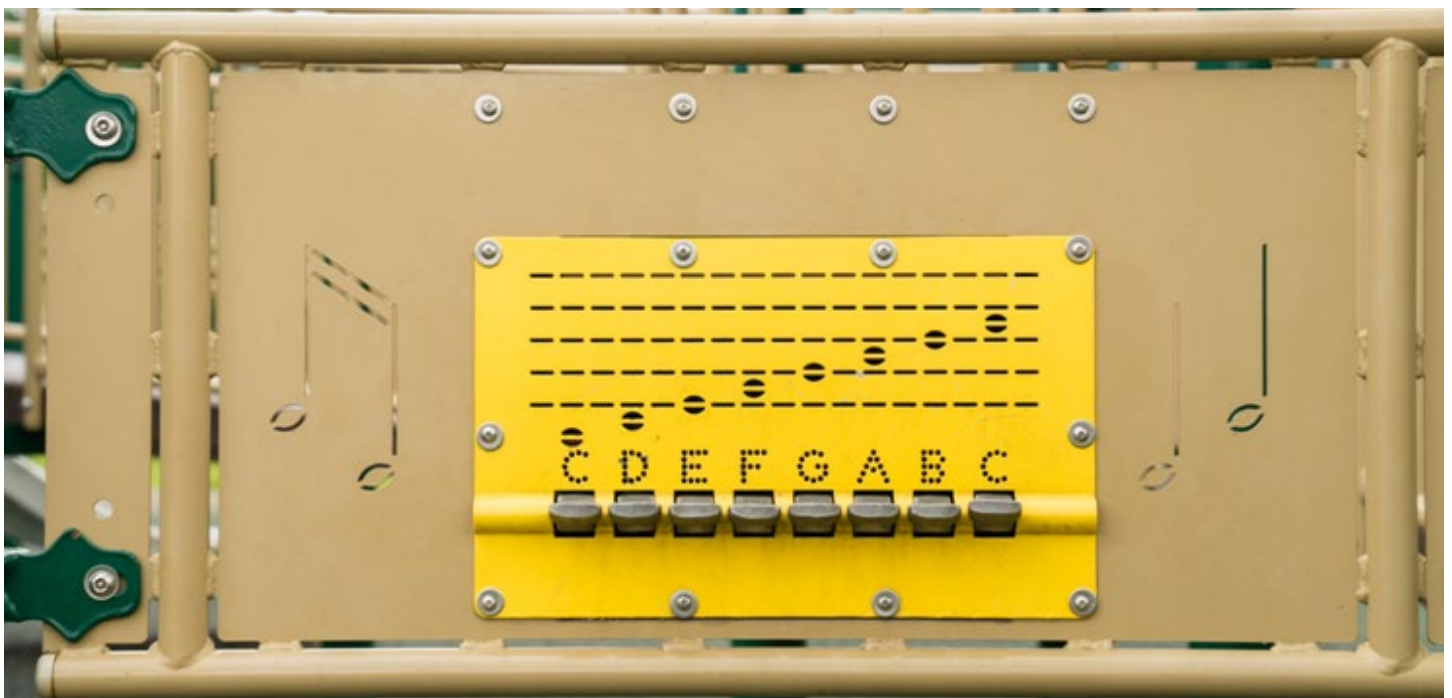
In the United States, play has transitioned from outdoor activities to indoor settings in front of televisions and computers. Screen time likely contributes to the overweight/obesity epidemic because it displaces other activities requiring greater energy expenditure. Screen time has also been associated with snacking, as well as with increased exposure to advertisements that promote foods with limited nutritional value^{6, 18}.

Often, schools sacrifice outdoor play to commit more time to other educational activities. Administrators might not be aware that play can have positive impacts not only on child development, but also on academic development and performance¹.

Importance and Benefits of Play

Children learn while playing. Good, quality play opportunities have a significant impact on child development²⁴. When children play, they engage in relationships and the use of their senses and feelings while also learning and engaging in healthy behaviors.

Play is beneficial to overall child development. The benefits of play include cardiovascular, gross motor, cognitive, emotional, and social development. For example, physical activity promotes increased blood flow to the brain, leading to cognitive development³¹. Another benefit of play relates to perceptual-motor development, which is an outcome of the interaction between sensory perception and motor



actions. Visual, auditory, and tactile sensory abilities are combined with emerging motor skills to develop perceptual-motor abilities ¹¹.

In addition to this, outdoor play allows children to engage in risk-taking behaviors outdoors that would be impossible indoors, challenging themselves in ways that lead to improved self-esteem and self-confidence ⁸. Finally, additional health-related benefits, such as aerobic and muscular endurance, strength, flexibility, and improvement in the function of vital organs have also been associated with play ¹⁴.



Free Play

Free play is a social event because children prefer to play in groups. Even when they play alone, they often take on the roles of the people they see around them (e.g., parents, siblings, caregivers). Normally, infants' first play partners are parents who teach them simple games like "peek-a-boo!" Next in line are siblings who engage in active play roles. Without social play, children run the risk of not learning these important skills during childhood. Excluding children from free play may lead to difficulties in relating to others throughout adulthood ¹⁹.

Children also gain numerous physical benefits from outdoor free play (see Table 1) ¹¹. Physical education (PE) classes should not substitute free play, as research has shown that PE classes do not deliver the same benefits as recess and other free play activities ². According to the authors, this could be explained by the rigid design of PE classes, which may be too structured and include adult-imposed rules.

Table 1: Child Physical Development During Free Play

Activity	Benefit
walk, run, skip, gallop, jump, hop, climb, hang	strengthen large muscle groups and learn about locomotion
throw, catch, roll, kick balls, swing from rung to rung on overhead ladders and bars, climb up or down ladders and stairs, stand up at the bottom of a slide, walk along landscape timbers or balance beams	hand-to-eye and foot-to-eye coordination
walk on sand, pea gravel or mulch, slide down straight and twisting slides, swing on seats or barrels	refine various balancing skills and increase control over muscles by resisting gravity
dig in and build with sand, play with toy trucks, animals and action figures and dolls, and other outdoor toy objects, pour water between containers, gently handle non-harmful smaller insects and animals	cultivate fine motor skills

Americans with Disabilities Act of 1990 (ADA)

The Americans with Disabilities Act of 1990 (ADA) is a wide-ranging civil rights law prohibiting, under most circumstances, discrimination based on disability, which is defined by the ADA as “a physical or mental impairment that substantially limits a major life activity.” The ADA establishes standards by which public facilities, including public play spaces, must comply to ensure opportunities for people of all abilities.

Starting Point for Accessibility: 2010 Standards for Accessible Design, Play Areas

Under the 2010 ADA Standards for Accessible Design, newly designed, constructed, and altered play areas must adhere to enforceable accessibility requirements effective March 15, 2012, which include a requirement to provide at least one accessible route to each play component in a play area.

Accessibility Services is a team of professional accessibility specialist who are skilled in applying state and federal accessibility requirements. Their staff have received numerous requests from owners/



operators of facilities that contain play areas to clarify how these new standards apply to existing play areas (i.e., constructed prior to March 15, 2012). Below is a summary of compliance dates and information on how existing play areas are affected in relation to both ADA Title II (state and local government facilities) and Title III (places of public accommodation) entities.

For newly constructed and altered play areas, as well as existing play areas undergoing barrier removal to comply with the new regulations, Section 240 of the 2010 ADA Standards contains the scoping for accessibility requirements. The technical requirements for the design of these required accessibility features in play areas are found in Section 1008. Both the scoping and technical requirements can be accessed here:

<http://www.ada.gov/regs2010/2010ADAStandards/2010ADAstandards.htm>.

Due to potential confusion about the standards for new and existing public play facilities, the International Play Equipment Manufacturers Association (IPEMA)—the industry’s membership association that provides third-party validation and certification of playground equipment and surfacing safety standards—has created a toolkit designed to help those in charge of play facilities achieve compliance.

The Checklist for Access summarizes 12 key steps for compliance. It is intended to help owners of public play areas understand how to use the Department of Justice’s 2010 Standards for Accessible Design. The checklist can be accessed here: http://www.ipema.org/news_articles/12/IPEMA_Checklist.pdf



What is an ADA-Compliant Playground?

An ADA-compliant playground is one that meets all of the ADA guidelines for playgrounds. It does not mean that children with disability will be able to play on the playground; barriers may still exist. ADA-compliant playgrounds are often not fully, equitably usable by individuals with various disability conditions.

What is an Accessible Playground?

An accessible playground ensures that all areas and equipment can be accessed or reached by children or adults with physical disability who use wheelchairs or other types of mobility devices. The idea of accessible play involves creating a playground that will enable children and adults to get to play equipment. Accessibility should be taken into account in relation to the design and construction of the playground structure.





What is an Inclusive Playground?

An inclusive playground considers not just physical equipment, but also emotional, social, and psychological benefits of play. It encompasses the philosophy that children and adults of all abilities benefit immensely from being able to play and interact together. In addition to ramps, accessible swings, and play panels, an inclusive playground may also feature sensory walls, quiet sensory gardens, water play or splash pads, and more.

While an ADA-compliant playground is not necessarily accessible, and inclusive playground takes into account wheelchair and all other forms of accessibility. For additional information on compliance, see the checklist for ADA compliance created by PlayCore, a play and recreation company.

Accessible Design vs. Universal Design

Accessible design describes a site, building, facility, or portion thereof that complies with the minimum accessibility standards as set forth under the ADA, the Architectural Barriers Act (ABA), and/or local building codes. Accessible design has the distinct purpose of meeting the environmental and communication needs of the functional limitations of people with disability. Accessible design aims to meet minimum requirements to achieve usability ²⁵.

Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design ⁴. While accessible design is focused on the needs of people with disability, universal design considers the full spectrum of human abilities. It aims to exceed minimum standards to meet the needs of the greatest number of people ²⁵.

Principles of Universal Design

The Principles of Universal Design were developed by a consortium of universal design researchers and practitioners. The seven principles and their respective guidelines are presented in the offset text box. The discussion that follows gives examples of the application of the Principles of Universal Design to the playground environment ³⁴.

Principles of Universal Design:

1. **Equitable Use:** design is useful and marketable to people with diverse abilities
2. **Flexibility in Use:** design accommodates wide range of individual preferences and abilities
3. **Simple and Intuitive Use:** use of design is easy to understand, regardless of user's experience, knowledge, language skills, or current concentration level
4. **Perceptible Information:** design communicates necessary information effectively to user, regardless of ambient conditions or user's sensory abilities
5. **Tolerance for Error:** design minimizes hazards and adverse consequences of accidental or unintended actions
6. **Low Physical Effort:** design can be used efficiently, comfortably, and with a minimum of fatigue
7. **Size and Space for Approach and Use:** appropriate size and space is provided for approach, reach, manipulation, and use, regardless of user's body size, posture, or mobility





Playgrounds Rules

Playground rules can be printed and posted on signs and enforced by parents and other authority figures to keep children safe and to avoid lawsuits. These sets of rules should be uniform for individual playgrounds, but can vary from playground to playground. The importance of uniformity in rules relates heavily to adult influence on playground activities. When adults are overheard commenting on how children aside from their own should and should not be allowed to play, it creates an additional layer of stress. Parents may feel pressured to encourage their children to play in a certain way at a playground based on verbal comments and looks from other parents who prefer certain rules to be upheld, lest their own child be injured or influenced to play less safely due to breaking a rule. It is okay for children to see themselves and others playing differently from each other. From an occupational therapy perspective, these rules can be more harmful than helpful to a child's play skill development.

Below is a list of rules (see Table 2) that may be seen on posted signs or audibly heard relating to how children "should" play in playground environments. A rationale statement follows each rule and highlights how breaking these rules can benefit play skill development.

Table 2: Breaking Playground Rules

Ladders

Rule: "Do not climb without using both hands."

Rationale statement: A child may be well-balanced, competent, and ready to climb in different ways, if they prefer and are able to do so. Without seeing a child's climbing skills in action, it cannot be assumed that the child is unsafe climbing without two.

Rule: "Do not start at the opposite ends (of monkey bars). Everyone start at the same end and move in the same direction. Do not stand on top of ladder. Stay well behind the person in front of you."

Rationale statement: Telling children how to work through a problem they have not yet encountered will take away the experience of problem-solving.

Seesaws/Teeter Totters

Rule: "Do not lean back on seesaws/teeter totters. Sit straight. Hold on with both hands. Do not stand or run on the board or plank. Sit on the seats only."

Rationale statement: Once children achieve independence on a seesaw or teeter totter riding in the traditional manner, they will naturally find ways of making the activity more exciting by making small adaptations and gradually increasing the degree of difficulty and sense of reward. Therefore, it can be incredibly restrictive to make a rule that children must ride in a specific manner.

Slides

Rule: "Do not climb up the sliding surface (of slides). Use the ladder. Hold on with both hands. Take one step at a time. Do not slide down improperly. Slide feet first, sitting up, and one at a time."

Rationale statement: Climbing slides is a brilliant way for children to have a powerful burst of tactile and proprioceptive ("heavy work") sensory input. Hard-working muscles engaged in the gripping, pulling, climbing action, as well as the deep pressure input going through the open palms, feet, wrist, shoulder, ankle, knee, and hip joints in the 'bear walk' position (hands and feet), send strong messages to the brain about body position.

Swings

Rule: "Only one person per swing at a time. Always sit in the center of the swing; do not stand or kneel. Hold the chains tightly with both hands. Stop the swing completely before getting off. No jumping off the swings, twisting the ropes/chains of the swing, or sideways swinging. Do not push other children on the swings. If you cannot start swinging on your own, ask an adult to push you softly to get you started."

Rationale statement: Children do not like swinging for hours on end in exactly the same manner.

All the different ways to swing are wonderful movement experiences to support a maturing sensory system. Jumping off the swing is a great way to practice the motor planning skills of prediction and timing.

Fire Poles

Rule: "Hold on with both hands and wrap your legs around the pole when you slide down. Slide down carefully and make sure you land on two feet with your knees slightly bent."

Rationale statement: Children will typically learn how to slide down (or shimmy up, or swing around) fire poles by watching other children (or adults) as visual examples.

Rule: "No bare feet/Wear proper footwear."

Rationale statement: Sensory seekers will love feeling the variety of textures at the playground through their feet (e.g., wood, metal, leaves, sand, dirt, mud, grass, puddles). Feeling a variety of textures through the feet will support the development of tactile discrimination and sensory processing efficiency in general. This relates to the development of good body awareness and knowledge of how one's body interacts with the world/environment. Always be aware of and immediately remove glass, needles, or sharp objects that might result in injury.

Children should be encouraged to create their own play rules while respecting others' ideas. The key is to use common sense and ensure appropriate adult supervision at all times. Breaking playground rules can lead to deeper, more meaningful play, a broader play skill set, and many and varied developmental gains and improvements.



For Playground Owners

Owners should choose play surfaces that are accessible and that can be maintained as accessible surfaces. These decisions should be addressed during the playground planning and design phases. User groups should focus on how to take advantage of the accessible playground to make/create inclusive spaces and opportunities.

1. All successful, inclusive playgrounds start with comprehensive planning. The site selection and layout of accessible routes should be considered alongside the selection of play equipment.
2. The accessibility standards apply to playgrounds in parks, malls, schools, childcare facilities, and other public accommodations covered by the ADA and the ABA. Playground owners, designers, and maintenance personnel must have a knowledgeable understanding of the requirements for ground-level accessible routes within the play area.
3. Accessibility assessments of the play area should be conducted during planning, onsite installation, and as part of ongoing maintenance and updates. Assessments should focus on accessible routes throughout the play area, along with clear ground space at entry/egress to accessible equipment. The areas and routes should be assessed for compliance with running slope, cross slope, changes in level, and openings.
4. Comparison shopping is essential in the planning process. Decision-makers should engage with suppliers to gather information on various surfaces and evaluate surface options. Sales representatives should provide documentation on installation, field-testing, maintenance, and a minimum five-year warranty. The planning team should talk to former customers and visit existing installations to determine what preventable or avoidable issues may come up during installation and maintenance.
5. The research findings tell us that there is no perfect surface. Each type of surface requires that the playground owner understand its characteristics and what is required

- for its installation and maintenance.
6. Proper installation of the playground surface is critical for long-term use and maintenance. An accessible surface system can be rendered useless if it is not properly installed. Installation should be performed by those knowledgeable of the accessibility standards and with expertise working with the surface materials. Field-testing should be conducted following installation and periodically throughout the life of the surface system.
 7. Playground ownership is a commitment to ongoing care and maintenance. Maintenance is one of the greatest factors affecting the accessibility of playground surfaces. Playground owners should have a thorough understanding of the care and maintenance required for their selected surface systems.



For Physical, Occupational, and/or Recreational Therapists

Therapists are not restricted to offices or gyms. Many incorporate the use of playgrounds into interventions to promote developmental skills within children. This modality of therapy is simple, effective, and fun. Here are some ideas:

1. **Playground Obstacle Course:** Make up a quick obstacle course on the fly, giving children multiple directions to follow. This is a great way to work on direction-following and sequencing, along with the motor skills required to perform each task.
2. **Conquer a Playground Challenge:** Completing a program of fun exercises, children can work up to conquering the monkey bars or learning to pump on a swing!

3. **Bring Playground Accessories:** Incorporate accessories (e.g., bean bags, bubbles, streamers, sidewalk chalk) into the mix to challenge children to conquer obstacles in new ways.
4. **Balance Beam Fun:** Use the above props to create fun new balance and coordination challenges on a balance beam.
5. **Grab a Partner:** Try a partner obstacle course or other activity.
6. **The Classics:** Use games like tag, hide-and-seek, or Simon Says (e.g., "Simon says run up the slide!" or "Simon says slide down the pole!").
7. **Go on a Scavenger Hunt:** Create and print off a hunt that utilizes all playground areas.
8. **Hop on a Swing:** Try different methods of swinging (e.g., linear motion, circular motion, while standing).
9. **Walk on the Wild Side:** Practice different forms of locomotion on varying surfaces, including those found at playgrounds (e.g., rubber playground surfacing, hard cement, grass, mulch). Try taking giant steps, baby steps, dinosaur stomps, hops, and jumps.



For Teachers and Schools

Cultivating Social Relationships

Play is essential for developing the social dimension of human development. Playgrounds serve as the perfect environments to cultivate social experiences if these experiences are achievable for children of all abilities. However, children with disability and those from culturally- and linguistically-diverse backgrounds may find it challenging to fit in during playtime.

Here are some ideas to help facilitate social experiences for all children, regardless of ability level or background:

1. Facilitate fun, structured games and activities on the playground.
2. Introduce simple games and activities that include repetition.
3. Make sure children come to the playground with a functional communication system. A portable augmentative communication device, picture communication book, object system, or other effective communication means is imperative to allow social dialogue to happen on the playground.
4. Make minor or major changes to the physical layout of the playground to make it more accessible to children with disability.
5. Discuss the topics of sharing and friendship before heading out to the play area.
6. Encourage students to meet new friends and to include others in their activities.
7. Have an adult supervisor in each area of the playground instead of adults congregating in one area.



Increasing Physical Activity on the Playground through Zoning

Recess can still be sedentary with students not engaging in enough physical activity. Researchers from the University of Missouri have found that zones with specific games can improve physical activity during recess. Zoning a playground involves dividing the existing recess area into separate zones with specific activities occurring within each zone. Zoning allows for traditional recess games such as basketball or kickball to be reworked to maximize physical activity. Kickball, for instance, can be changed to “hustle kickball,” where children playing the game kick and run in rapid order as opposed to waiting in line to kick ³⁹.



For Parents

Fun at a playground may be interrupted by an injury or accident. Some accidents can be prevented with proper supervision. Parents can make the playground safer by checking the equipment and playground area for potential hazards. One parental responsibility is to educate children on how to play safely without interfering with the spirit of free play.

For Parents or Caregivers with Disability

In the U.S., there are at least four million parents with significant disability who are raising children under the age of 18. This includes parents who have one or a combination of a physical, sensory, intellectual, or psychiatric disability or chronic illness.



Inclusive playgrounds should be designed not only with children with disability in mind, but also their parents and caregivers, who may also face barriers to access and use. Parents or caregivers with a disability may not be able to provide assistance or supervision to children playing if the playground has accessibility barriers, which can lead to an increased risk for falls and injuries.

Most modifications and accommodations for children are not appropriate for adults with disability. For example, most playground equipment, drinking fountains, and toilets that are accessible for small children with disability are usually not accessible for adults with physical disability. It is important to include children and parents with disability in the early stages of playground design and planning, as well as ongoing assessment, maintenance, and evaluation. This approach will help address inclusive challenges for both children and parents and caregivers.

Safety considerations:

- Children should always have appropriate adult supervision on the playground.
- Before visiting a playground, check to make sure play areas are designed to allow an adult to supervise children while they are playing. For parents with disability, check that the playground is inclusive prior to bringing children there.
- Inspect playground surfaces for softness. The surfaces under playground equipment should be both soft and thick enough to lessen and absorb the impact of falls.
- The playground should be free of rocks, tree stumps and roots, water, and other trip hazards, as well as foreign items such as broken glass or loose metal that may cause potential injury.
- Look for playgrounds that are designed for different age groups: infants and toddlers under two, two-to-five-year-olds (preschoolers), and five-to-12-year-olds (school-age). Make sure that children are playing in their designated age areas.
- Look for safety features such as guardrails and protective barriers around elevated surfaces.



- Swings, seesaws, and other equipment with moving parts should be located in an area separate from the rest of the playground. Look for safety features such as guardrails and protective barriers around elevated surfaces. Ensure they are not at risk of trapping a child's head, arm, or other body part.
- Assess the playground for signs of poor maintenance. If the playground is not well-maintained, avoid it. Contact the appropriate authority (e.g., city, school, parks/rec department, etc.) and request maintenance.
- Inspect structures for signs of weakness or weakening (especially wooden elements).
- If a piece of equipment, other structure, or any of their components seem broken, loose, or in need of other maintenance, designate as off limits immediately and report the problem to the appropriate authority.
- Do not use the playground if equipment and structures are wet or too hot to the touch. Make sure to wear sunscreen and reapply when necessary. Make sure that lotions and sunscreens do not interfere with a child's ability to grip things such as handles, guardrails, and monkey bars.

Funding Resources

Fully accessible community playgrounds start at about \$100,000 and may cost double or triple that amount, depending on the size of the project. Raising funds for a playground is a daunting task, but it is possible. Here are some tips and resources to help funding efforts.

Tips for Funding

1. Create fundraisers in the community (e.g., annual wrapping paper drive, tickets to the city's fireworks show, live and silent auction events,). Be creative. Research what sells best and what is needed in the community. This approach will also provide a service to

- the community while raising funds.
2. Ask parents and members of the community for possible connections that may lead to monetary help. Seek parents that have some expertise in construction, procurement, grant writing, or other areas that may be playground-related.
 3. Search, secure support for, write, and actively pursue applicable grants.
 4. Seek assistance from organizations that connect with possible donors. These organizations may already exist at the community level.
 5. Tell potential donors exactly how their gift will impact the project and focus on creating personal relationships with funders and potential donors.
 6. Contact local media. Based on who is creating the playground, ask community or school media representatives to write articles and create other promotional materials and media about the project.
 7. Apply for 501(c)(3) status. Consider making the playground group a legally-recognized nonprofit. While there is some initial expense to becoming a 501(c)(3) organization, it creates access to grant monies reserved for nonprofits.
 8. Designate a grant-writing position as part of the playground organization/team.
 9. Consider everyone and organization as a potential resource: community foundations, local philanthropists, school administrators, and elected officials might all provide connection to potential grants.

Tips for Resources

1. Playground Grant Guide (Landscape Structures): for corporate and non-profit organizations, <https://www.playlsi.com/en/contact-us>
2. Kaboom!: non-profit that provides playground grants to economically-disadvantaged communities, <https://kaboom.org/>
3. Unlimited Play: non-profit that helps plan, design, and build fully accessible playgrounds, <https://www.unlimitedplay.org/>
4. Inclusive Play Funding Sources Guide: <http://www.inclusiveplaygrounds.org/contact>



Highlights of Inclusive Playground Initiatives

The Seattle Children's PlayGarden: <http://www.childrensplaygarden.org>

The Seattle Children's PlayGarden is a public park that includes elegantly-housed chickens and bunnies, accessible climbing structures for children of all ages, giant topiary animals, and a kitchen garden planted with all sorts of yummy vegetables children love—peas, beets, corn, lettuce, potatoes—that are then cooked up, on the spot, in a child-friendly kitchen.

Shane's Inspiration: <http://www.shanesinspiration.org/playgrounds/>

My PlaygroundSM projects by Shane's Inspiration are designed to be accessible and inclusive playgrounds that allow children with disability to play along with typically-abled children. These free, outdoor play environments are age-appropriate and include safe, state-of-the-art, sensory-rich structures that encourage development in children with developmental disabilities such as autism, Down syndrome and cerebral palsy. The link above is for a list of My PlaygroundSM projects by Shane's Inspiration.

Magical Bridge Playground: <http://magicalbridge.org/palo-alto/>

This remarkable playground, located in Mitchell Park in Palo Alto, California, is heralded as the nation's most innovative and inclusive playground. Designed to be a socially inclusive playground for children of varying physical and cognitive abilities, Magical Bridge Playground addresses the unique play needs of the many diverse children in the community. The first of its kind, Magical Bridge Playground clearly highlights how today's typical park designs overlook so many: the growing population of those with autism, Deaf individuals and those with other hearing and visual impairments, individuals with mobility disability, and even the aging community.

Madison Place Playground: <http://madisonclairefoundation.org/projects/madisons-place/>

This 16,000-square-foot, all-inclusive playground offers sun shade-covered play decks, swings, sensory play equipment, and ramps for wheelchair access. Madison's Place serves as a regional gathering place for children of all ages and abilities to foster friendships and experience the excitement of being active on a playground and spending time outdoors.

Playground Directory: <http://www.playgroundsforeveryone.com/>

This playground directory will help you to find accessible playgrounds near you.



References

1. Bjorklund, D. F., & Pellegrini, A. D. (2000). Child development and evolutionary psychology. *Child Development*, 71(6), 1687-1708.
2. Active Living Research http://activelivingresearch.org/sites/default/files/ALR_Brief_ActiveEducation_Jan2015.pdf
3. Brown, P., Sutterby, J. A., Therrell, J. A., & Thornton, C. D. (2001). The importance of free play to children's development.
4. Center for Universal Design (1997). *The principles of universal design*, Version 2.0. Raleigh, NC: North Carolina State University.
5. Christiansen, M. & Vogelsong, H. (1996). *Play it safe: An anthology of playground safety*. Ashburn, VA: National Recreation and Park Association.
6. Coon, K. A., Goldberg, J., Rogers, B. L., & Tucker, K. L. (2001). Relationships between use of television during meals and children's food consumption patterns. *Pediatrics*, 107(1), e7-e7.
7. Drain, A. (May 4, 2006). Engineers hope to provide smooth slide for kids with cochlear implants. St Louis, MO: Washington University.
8. Ellis, M. (1973). *Why people play*. Englewood Cliffs, NJ: Prentice Hall Publishing Co.
9. Friendship Circle
<http://www.friendshipcircle.org/blog/2015/06/01/6-companies-selling-adaptive-playgrounds-for-schools-neighborhoods-and-parks/>
10. Frost, J., Brown, P. S., Sutterby, J., & Thornton, C. (2004). *The developmental benefits of playgrounds*. Olney, MD: Association for Childhood Education International.
11. Frost, J., Wortham, S. & Reifel, S. (2001). *Play in child development*. Columbus, OH: Prentice Hall-Merrill.
12. Gallahue, D. L. (1993). Motor development and movement skill acquisition in early childhood education. In B. Spodek (Ed.), *Handbook of Research on the Education of*
13. *GameTime*
www.gametime.com/images/uploads/general_docs/ADA-Checklist.pdf
14. Ignico, A. (1994). Early childhood physical education: Providing the foundation. *Journal of Physical Education, Recreation, and Dance*, 65, 28-30.
15. Inclusive Schools Network
<http://inclusiveschools.org/inclusion-on-the-playground/>
16. Indiana University News Room
<http://newsinfo.iu.edu/news-archive/19127.html>
17. Inspiring Play Magazine
<http://inspiringplay.com/inclusive-play-and-accessible-play-whats-the-difference/>
18. Jordan, A. B., & Robinson, T. N. (2008). Children, television viewing, and weight status: summary and recommendations from an expert panel meeting. *The ANNALS of the American Academy of Political and Social Science*, 615(1), 119-132.
19. Kemple, K. (1992). Preschool children's peer acceptance and social interaction. *Young Children*, 6, 47-54.
20. Kids Health
<http://kidshealth.org/en/parents/playground.html#>
21. Kids Play Space
<http://www.kidsplayspace.com.au/playground-rules-to-break-for-greater-play-skill-development/>

22. Madison Place Playground <http://madisonclairefoundation.org/projects/madison-place/>
23. Magical Bridge Playground
<http://magicalbridge.org/palo-alto/>
24. Moore, R. C., Goltsman, S. M., & Iacofano, D. S. (1997). Play for all guidelines: Planning, design and management of outdoor play settings for all children. MIG Communications, 800 Hearst Ave., Berkeley, CA 94710.
25. National Center on Accessibility. (2002). Playground accessibility study. Bloomington, IN: National Center on Accessibility at Indiana University. Unpublished.
26. National Center on Health, Physical Activity, and Disability (NCHPAD) www.nchpad.org/529/2457/Designing~for~Inclusive~Play~Applying~the~Principles~of~Universal~Design~to~the~Playground
<http://www.nchpad.org/1505/6461/Discover~Inclusive~School~Wellness>
27. Prellwitz, M., & Skär, L. (2007). Usability of playgrounds for children with different abilities. Occupational Therapy International, 14(3), 144-155.
28. Prellwitz, M., Tamm, M., & Lindqvist, R. (2001). Are playgrounds in Norrland (northern Sweden) accessible to children with restricted mobility?. Scandinavian Journal of Disability Research, 3(1), 56-68.
29. Rick Handson Foundation
https://www.rickhansen.com/Accessible_Playgrounds
30. Shane's Inspiration
<http://www.shanesinspiration.org/playgrounds/>
31. Shephard, R. J. (1997). Curricular physical activity and academic performance. Pediatric exercise science, 9, 113-126.
32. Skär, M. T. L. (2000). How I play: Roles and relations in the play situations of children with restricted mobility. Scandinavian Journal of Occupational Therapy, 7(4), 174-182.
33. Skulski, J. (2013). A Longitudinal Study of Playground Surfaces to Evaluate Accessibility FINAL REPORT. National Center on Accessibility.
34. The Center for Universal Design Accessible Design and Universal Design
<https://www.ncsu.edu/ncsu/design/cud/>
35. The Inspire Treehouse
<http://theinspiredtreehouse.com/playground-games-activities-kids/>
36. Through the Looking Glass
<http://www.lookingglass.org/pdf/Classroom-Awareness-Parents-with-Disabilities-2013-TLG-.pdf>
37. U.S. Census Bureau. (July 2005). Disability and American families: 2000. Washington, DC: U.S. Census Bureau. Retrieved from <http://www.census.gov/prod/2005pubs/censr-23.pdf>
38. United States Access Board
<https://www.access-board.gov/>
39. University of Missouri News Bureau
<http://munews.missouri.edu/news-releases/2016/0808-playground-zoning-increases-physical-activity-during-recess/>
40. Young Children (pp. 24-76). New York: MacMillan Publishing Company.

Resources

1. Establishing Best Management Practices for Recycled Tire Rubber Playground Surfaces to Comply with New ADA Accessible Design Requirements <http://www.calrecycle.ca.gov/Publications/Documents/1496/20141496.pdf>
2. Inclusive Play Funding Sources Guide <http://www.inclusiveplaygrounds.org/contact>
3. Kaboom! <https://kaboom.org/>
4. Landscape Structures <https://www.playlsi.com/en/contact-us>
5. National Center on Health Physical Activity and Disability (NCHPAD) <http://www.nchpad.org/>
6. Playground Directory <http://www.playgroundsforeveryone.com/>
7. Playworld http://playworld.com/why_playworld/Next-Steps
8. The Center For Universal Design <https://www.ncsu.edu/ncsu/design/cud/index.htm>
9. Unlimited Play <https://www.unlimitedplay.org/>