



# The Ability Center

Making independence possible since 1920

“Play is often talked about as if it were a relief from serious learning. But for children, play is serious learning.”

**Mr. Rogers**

“Scientists have recently determined that it takes 400 repetitions to create a new synapse in the brain - unless it is done with play, in which case, it takes between 10 and 20 repetitions!”

**Dr. Karyn Purvis**

“Play while it cannot change the external realities of children’s lives, can be a vehicle for children to explore and enjoy their differences and similarities and to create, even for a brief time, a more just world where everyone is an equal and valued participant.”

**Patricia G. Ramsey**

## Universal Design for Playgrounds

The Ability Center’s mission is to advocate, educate, partner, and provide services supporting people with disabilities to thrive within their community.

Playgrounds are important community spaces used to enhance and foster the development of children. When children are unable to access play spaces, they miss out on both community engagement and essential opportunities for development. This guide is meant to serve as an informal tool to create inclusive playgrounds that meet the needs of all children in our community. It was created combining principles of universal design, best practices in child development, and the Americans with Disabilities Act (ADA) guidelines.

### What is universal design?

For many children with disabilities, playground equipment is challenging or impossible to use. Physical accessibility, sensory, cognitive, or behavioral challenges can prevent children from enjoying the playground. **Playground universal design** provides accessibility for all which is essential in fostering a sense of engagement and belonging in schools and in the community at large.

The Center for Universal Design (1997) outlined 7 principles for universal design\*:

- Equitable use
- Flexibility in use
- Simple and intuitive use
- Perceptible information
- Tolerance for error
- Low physical effort
- Size and space for approach and use

\*See addendum for additional information on universal design.

**Universal design** ensures physical accessibility; looks to best practices in physical accessibility from the Access Board; and provides playground equipment that is accessible to children with or without disabilities.



# Universal Design for Playground Checklist

**Disclaimer: Use of this checklist is intended as an informal planning and awareness guide. It does not guarantee compliance with Americans with Disabilities Act (ADA) or other accessibility laws and does not cover all ADA regulations. Playground designers should consult with a professional regarding legal compliance.**

**Playground Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Primary Age Group(s) Using Equipment:**     6-23 months    2-5 years    5-12 years    13+ years

## **Entrance**

- Playground is accessible via public transportation and parking? \*  Y  N
- Does an accessible route connect all entrance/exit points to the playground no steeper than 1:12?  Y  N
- Is the playground surrounded by a fence or natural barrier to eliminate elopement?  Y  N
- Is a map of the playground available (both visual and tactile)?  Y  N
- Are tactile cues used to aid navigation of the playground?  Y  N

## **Notes:**

## **Surfacing/Pathways/Layout**

- Is the playground surface accessible (level, stable, firm, and slip-resistant)? \*  Y  N
- Is the rise for any ramp run connecting elevated play components no greater than 12in? \*  Y  N
- Is the running slope of any ramps connecting ground-level play components no greater than 1:16?  Y  N
- Is there an accessible route from ground level to at least 50% of higher-level structures? \*  Y  N

\*Denotes items required by ADA The 2010 ADA Standards for Accessible Design can be found [here](#). (Sec. 240 Scoping: Pay Areas; Sec. 1008 Play Areas)

Is the vertical clearance of the accessible route at least 80 in above ground surface? \*  Y  N

Handrails:

Stairs and ramps are equipped with handrails on both sides? \*  Y  N

Top of gripping surface no less than 20in and no greater than 28 in above the ramp's surface? \*  Y  N

Gripping surface is circular with an outside diameter of at least .95in and no more than 1.55in? \*  Y  N

OR Non-circular providing equivalent gripping space? \*  Y  N

If the play area is less than 1000 sq. ft:

Is the accessible route connecting play components at least 44in wide? \*  Y  N

If the route exceeds 30ft in length, is a wheelchair turning space provided? (i.e. a circle at least 60in in diameter or a T-Shaped space with a 60in square) \*  Y  N

If the play area is 1000 sq. ft or more:

Is the route connecting play components at least 60in wide? \*  Y  N

OR 36in wide for a distance of no greater than 60in so long as the 36in segments are separated by segments that are at least 60in long by 60in wide? \*  Y  N

Is the accessible route connecting play components at least 36in wide? \*

OR at least 32in wide for a distance of no greater than 24in if the reduced-width segments are separated by segments that are at least 48in long and 36in wide? \*  Y  N

OR if part of a transfer system, at least 24in wide? \*  Y  N

If there are elevated play components, is there an accessible route to at least the following number of ground-level components?  Y  N

(See Chart)

| Number of Elevated Play Components Provided | Minimum Number of Ground-Level Play Components Required to be on an Accessible Route | Minimum number of <b>different types</b> of Ground-Level Play Components Required to be on an Accessible Route |
|---|--|--|
| 1   | n/a  | n/a  |
| 2-4   | 1  | 1  |
| 5-7   | 2  | 2  |
| 8-10  | 3  | 3  |
| 11-13                                       | 4  | 3  |
| 14-16                                       | 5  | 3  |
| 17-19                                       | 6  | 3  |

\*Denotes items required by ADA The 2010 ADA Standards for Accessible Design can be found [here](#). (Sec. 240 Scoping: Pay Areas; Sec. 1008 Play Areas)

|       |   |   |
|-------|---|---|
| 20-22 | 7   | 4 |
| 23-25 | 8   | 4 |
| 26+   | 8 plus 1 for each additional 3, or fraction thereof over 25 | 5 |

Design elements aimed to improve accessibility (concentric circles, graded elevation, and/or circular or linear pathways)?  Y  N

Accessible play opportunities are on an accessible route, dispersed throughout the play area and integrated with other play components? \*  Y  N

All ramp structures lead to a meaningful playground experience?  Y  N

Is there an absence of open platforms (high risk for those with visual impairment)?  Y  N

Height change on the playground is denoted by change in equipment color.  Y  N

Is there visual contrast on walkways/paths and on hand grips within the playground?  Y  N

Are shiny surfaces avoided?  Y  N

Is there enough space between equipment for children to navigate and maneuver including those with mobility needs?  Y  N

Are clear lines of sight available throughout the playground (holes in tunnels, see through equipment, etc.)?  Y  N

Are visual and tactile boundary lines used to promote safety around play equipment?  Y  N

**Notes:**

\*Denotes items required by ADA The 2010 ADA Standards for Accessible Design can be found [here](#). (Sec. 240 Scoping: Play Areas; Sec. 1008 Play Areas)

## Equipment

|   |   |
|---|---|
| If a transfer system is provided on an elevated play component or slide, is the transfer system at least 24in wide?   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Is the top of the transfer platform no less than 11in and no greater than 18in from the ground? *   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Is the transfer platform at least 14in deep? *  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Is there a clear transfer space at least 30in wide and 48in long adjacent to the platform, with the longer edge centered on the 24in minimum long side of the platform? * | <input type="checkbox"/> Y <input type="checkbox"/> N |
| At least 50% of slides have a transfer station at the bottom and are accessible via ramp?   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Does the transfer station have a storage place for mobility equipment?  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Are a variety of accessible play opportunities offered?   |   |
| • Spinning  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Sliding   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Rocking   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Swinging  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Climbing  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Crawling  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Strengthening   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Balancing   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Bouncing  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Sound/Auditory  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Touch/Tactile   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| At least one slide is a double slide to allow for support and socialization?  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| At least one roller slide (accessible for those with cochlear implants)?  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Activity panels that are within reach from a variety of heights?  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| Are various types of swings available for differing needs?  |   |
| • Bucket swings (youth and adult size)  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Platform (wheelchair accessible)  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Single point swing  | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Partner/generational swings   | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Straps, seatbelts   | <input type="checkbox"/> Y <input type="checkbox"/> N |

\*Denotes items required by ADA The 2010 ADA Standards for Accessible Design can be found [here](#).  
(Sec. 240 Scoping: Play Areas; Sec. 1008 Play Areas)

- Are there spaces available for independent play (tunnels, pods)?  Y  N
- Are there a variety of tactile sensations offered (sensory panels)?  Y  N
- Are there clearly defined separate play areas for separate age groups?  Y  N
- Does all equipment appear to be in safe working condition?  Y  N
- Plan in place and implemented for routine safety checks of all equipment?  Y  N

**Notes:**

**Amenities**

- All amenities are on an accessible surface and route?\*  Y  N
- Are water fountains available and at varying heights?\*  Y  N
- Are the restrooms accessible?\*  Y  N
- Are picnic tables accessible for those with mobility needs/devices?  Y  N
- Do the restrooms offer adult size changing tables?  Y  N
- Are there benches available with back arm rests near the playground?  Y  N
- Is there a shade structure (natural or manmade) available on the playground?  Y  N

\*Denotes items required by ADA The 2010 ADA Standards for Accessible Design can be found [here](#). (Sec. 240 Scoping: Pay Areas; Sec. 1008 Play Areas)

Is there a relief area available for service animals?

Y  N

**Notes:**

### Social Features

Are signs/communication available in a variety of forms (words, pictures, braille)?\*

Y  N

Are there signs available with activity suggestions?

Y  N

Are activity panels available to promote social interaction and sensory stimuli (musical instruments, spinning elements, games, etc.)?

Y  N

**Notes:**

### Additional Supports for Universal Design

Sensory map provided to indicate level of intensity of equipment?

Y  N

Raised sand/water table or garden beds?

Y  N

Aromatic plants used as navigation indicators?

Y  N

Natural features (plants, trees) are clearly labeled for sensitivity safety?

Y  N

Playground supervisors have been trained on how to provide active supervision, foster active play, promote positive behaviors, resolve conflicts, and interact positively with children?

Y  N

\*Denotes items required by ADA The 2010 ADA Standards for Accessible Design can be found [here](#). (Sec. 240 Scoping: Play Areas; Sec. 1008 Play Areas)



Playground rules are clearly stated, posted in a visible location, and reinforced by supervising adults?

Y  N

Provide sensory maps indicating level of sensory arousal (low, medium, high) for each piece of equipment?

Y  N

**Notes:**

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## References

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## Addendum: **Universal Design**

The Center for Universal Design (1997) outlined 7 principles for **universal design**:

1. Equitable Use
2. Flexibility of Use
3. Simple and Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Low Physical Effort
7. Size and Space for Approach and Use

**Equitable Use** means that the design fosters a sense of belonging making the space friendly to all. This design principle allows for all participants to enjoy the space without being isolated or stigmatized. Examples of this for a playground may include: the primary entrance to the playspace being accessible rather than a secondary and less used entrance being accessible, various types of swings in one area, and ramps to the highest point of the play structure.

**Flexibility of Use** accepts that not everyone does things the same way. An example of this on a playground includes the option of sand play from sand tables of various heights or in an enclosed area at the ground level. Providing a portion of the ground level sandbox with a ramped entrance allows for increased use by all children. Offering the variety of tables versus ground space allows control over the amount of tactile sensory input being provided by the sand in addition to making sand play achievable for those that may have difficulty playing at ground level.

**Simple and Intuitive Use** is thoughtful design so that all users can determine the purpose of the equipment. This is often taken into consideration for play panels that children of all ages and cognitive abilities will use. This design concept also helps eliminate an institutional or obvious element to accessibility. Examples include: a full-length mirror rather than a slanted mirror in the restroom, a transfer platform that is embedded and natural part of the design of a play structure such as a bug's wing as a transfer platform.

**Perceptible Information** attests to the idea that humans learn in different ways (visual, auditory, kinesthetic, etc). When information is presented in various ways it becomes available to everyone. Examples include providing safety rules in words, pictures, and braille, color-coding equipment based on age level, and providing different colored pavement around swings to increase safety awareness.

**Tolerance for Error** affords children the ability to make mistakes or challenge themselves and remain safe. Playgrounds that have routine safety checks, maintenance and the reduction of hazards (such as open elevated platforms disconnected from another structure) allow children to explore safely.

**Low Physical Effort** allows children to navigate the design without exerting unnecessary effort. Using the equipment can require physical effort but navigating the surface of the playground should not. If a child must expel all their energy to navigate an unstable or uneven surface, they may have little energy left for play.

**Size and Space for Approach and Use** acknowledges that humans come in all shapes and sizes and designs spaces to fit the needs of all. This allows adults to help children, use mobility equipment, or walk safely under a bridge. An example of this includes having bridges and walkways of play structures large enough for an individual in a wheelchair to navigate.

## Addendum: **Companies with Inclusive Playground Equipment**

- [American Parks Company](#)
- [DWA Recreation / GameTime Playgrounds](#)
- [Landscape Structures](#)
- [Little Tikes Commercial](#)
- [Miracle Recreation](#)
- [Playcore](#)
- [Playworld](#)