

Recommended Best Practices for Inclusive Education:

Early Intervention & Preschool



Research over the past 40 years has shown us the ways in which having Down syndrome may impact learning and development. When we understand these differences, we can design more effective interventions and educational strategies to support students with Down syndrome. The practices outlined in this resource are excerpted from *Down Syndrome: Guidelines for Inclusive Education*, a document developed by the National Down Syndrome Society (NDSS) and Down Syndrome Education International, to improve the development and educational outcomes for individuals with Down syndrome. This resource addresses birth through preschool years. Please refer to our other resources for information on other age groups.

Support Needs

An Individualized Family Service Plan (IFSP), and subsequently an IEP, should be created by a qualified comprehensive team of professionals in partnership with the child's parents and input from specialists. The plan should be put in place as early as possible and must be formally reviewed, at least annually, and should be subject to continual progress monitoring and adaptation as required.

Lead teachers and providers must be identified with the responsibility of ensuring information about the child with Down syndrome is shared with all staff working with the student, communicating with parents regularly, and advocating for the child within the educational setting

Motor Development

Some children will be delayed in their gross motor skills and require support to move from sitting to standing, or to walk, while others will be able to walk and run but will have difficulty in jumping, hopping etc. Time will need to be dedicated to developing these skills and to refining fine motor skills. Advice from a physical therapist and/or occupational therapist will be needed.

It is also important to think of ways to compensate for fine and gross motor delays for this age group as motor delays may increase cognitive, language and social delays. Early learning involves handling and exploring objects and learning about their properties. Children can be supported to hold, feel and explore objects they cannot yet handle by themselves. Being able to move allows children to fetch a toy or take it to someone who will talk about it. Being able to stand and walk increases independence and increases conversations with others. It is important to think about what a child may be missing compared to others of their age and give them support to experience these things.

Communication

Young children with Down syndrome have delayed spoken language skills compared with typically developing peers. A majority will also have fluctuating hearing loss. For this reason, speech and language therapy should be a priority, and start during infancy and continue through preschool.

Settings will need to make extensive use of visual communication strategies and make adaptations to language and routines to meet the individual's communication support needs.

The use of signing supports will aid young children with Down syndrome in understanding language, expressing themselves and participating in activities. Lead staff members may need training to develop signing skills and share necessary signs with all staff and other children who are regularly with the child with Down syndrome. Those responsible for directly supporting the child's learning should develop more extensive signing skills including specific vocabulary to support learning and language goals and use of signs linked into sentences. Parents can advise staff on the vocabulary of signs that their child currently uses. While staff should recognize a child's personal adaptations of standard signs, they should use standard signs in communication with the child.

Support to develop signing skills within the setting may include training from signing tutors, signing reference materials and visual displays that staff can refer to. Most children drop signs as they get to 4-5 years of age and can say words. At this point they will learn new words in their spoken form. It is important that signs are always accompanied by the spoken word and staff are aware the signing is being used as "a bridge to talking."

Implementation of activities to support speech production skills, devised and monitored by a speech-language pathologist, should include direct work on the perception, learning, discrimination and production of speech sounds from the first year of life to enable children to move from signs to spoken words as soon as possible. This is also a priority because speech sound development influences vocabulary and verbal short-term memory development. Support from the speech-language pathologist should include training for other educational staff.

Young children with Down syndrome will benefit from lesson plans that support learning to speak through learning to read, using a whole word approach with word matching, selecting and naming. It is essential that this is practiced daily with staff who are trained and that this is carried out alongside other practice in the setting to promote reading and early phonic skills.

Play Support

Children with Down syndrome may find it difficult to engage in, and learn from, opportunities for free play. Adult support and planned activities will be needed to establish positive engagement during free play opportunities and facilitate progression from parallel play (playing next to other students) to cooperative play (engaging and playing with other students). Clear routines, modeling, praise, and structured play tasks are effective strategies to support learning. Establishing these should also consider how to involve other children in the setting. Children should be encouraged to play as independently as possible within appropriate activities, which may need to be set up in addition to those planned for the group.

Behavior & Social Development

Helping children with Down syndrome to develop self-regulation skills, manage their behavior, and cooperate with others is essential from the first year of life. It starts with establishing sleeping and feeding routines, learning to wait, and taking turns.

It is important for families and professionals to set clear boundaries, have effective behavior management strategies in place, and expect and reward age-appropriate behavior despite their child's developmental delays. This will enable their child to learn in school and enjoy social activities with family and friends.

Social behavior is learned in social settings. Most children with Down syndrome are interested in others and have good imitation skills, which means they can learn social behaviors from their typically developing peers. However, these strengths can also be used inappropriately to draw a reaction from others. Oftentimes, "cute" social behaviors are used as a diversion to avoid the task at hand and are rewarded by the reactions of adults and other children. Behaviors considered acceptable for a toddler may soon become a problem. This should be kept in mind while developing age-appropriate behavior expectations.

Due to language delays, many toddler's behaviors are communication. Always consider possible causes of behavior, such as health issues, pain, tiredness, stresses at home, and changes in routine.

Communication between home and the daycare or preschool is essential. Make sure the child is prepared for transitions and changes by explaining, using visual representations, and practicing ahead. Picture books using personal photos are also effective. Children with Down syndrome can be very sensitive to negative emotional cues and may demonstrate unfavorable behaviors due to fear or anxiety around failure or disapproval that they pick up from an adult who is with them.

Learning to Learn

Children with Down syndrome will need to be taught how to improve listening skills and attention control, share toys, take turns, join in with group games, and learn the rules of the setting, etc. alongside their typically developing peers. Learning to sit and attend can be encouraged in one-to-one teaching activities ("show me," "give me," "it's your/my turn") and in shared book reading.

Advice or consultation from an occupational therapist or others with specialist knowledge of sensory processing difficulties may be required for the management of sensory motivated behaviors and to promote progression with skills.

Seating and other equipment may need to be adapted to accommodate the student's physical or sensory needs.

Technology

Most preschoolers can use and learn from apps on tablets, so this support should be considered. Apps present information with visual supports, and the child responds with touch. This plays to their strengths as they do not have to speak to show they understand. An app can also support the repetition needed to consolidate learning in a fun way. The apps need to be chosen carefully to ensure they are suitable for children learning more slowly. Many are designed for typical preschoolers and do not teach in small enough steps. They may also have cartoon illustrations rather than photos or realistic pictures and too much music, etc. Most children will not be able to use apps effectively to self-teach at this age, so they should be supported by an adult and used as a learning aid. Some students may also be using and benefitting from AAC, speech-generating devices or communication apps.

Self-help Skills

Children with Down syndrome in early Intervention or preschool settings may still be using diapers, so staff need to be familiar with toilet-training programs for children with learning and communication delays.

Settings need to identify and set up suitable toileting arrangements that maintain the dignity of the student and provide equipment for the stage of independence that a child has reached. In addition to equipment suitable for toilet-training, students may require additional equipment such as a step up to toilet and handholds (grabs or rails) to meet individual support needs. It must be noted that needing support for toileting is not a reason to keep students out of the general education environment.

Children will need help with dressing and undressing, e.g., taking off or putting on coats and changing shoes.

Eating and drinking skills are typically delayed for many children with Down syndrome due to differences of anatomy and physiology. Common features within this age group include sensitivity to consistencies, intolerance of certain temperatures, immature chewing patterns and refusal to vary from a limited set of foods and utensils. Advice from a speech-language pathologist or occupational therapist who specializes in feeding issues may be needed. These specialists can advise on the management of eating and drinking difficulties, aid in developing a multidisciplinary feeding team and train classroom staff on the nature of difficulties and appropriate responses.

The complete version of *Down Syndrome: Guidelines for Inclusive Education* can be found online: <https://ndss.org/inclusive-education-guidelines>