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ABSTRACT

This guidebook for early intervention personnel was developed by the "Let's Play! Project," a 3-year federally supported project that worked to promote play in infants and toddlers with disabilities through the use of "low-tech" assistive technology. An introductory section considers the importance of play for children of this age and is followed by a discussion of the play of children with disabilities. The next two sections consider the differences between therapy and play and the six stages of play development. The following section specifically addresses assistive-technology play supports in sub-sections on adapting commercial toys, positioning, mobility, switches, computers, and communication. The final section discusses the creation of play environments for infants and toddlers with disabilities. These include cribs, bathtubs, chairs and trays, and floor play. A list of addresses and phone numbers of play resources for children with special needs is attached. (DB)

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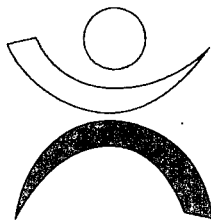


Creating

Play

Environments

**Let's Play Project
1995-2000
Grant# HO24B50051**



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Shelly Lane
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A PROFESSIONALS GUIDE TO:

Assisting Families in

Creating Play Environments

for Children with Disabilities

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AN INTRODUCTION

This play guidebook is intended to assist individuals who provide early intervention services to children with disabilities and their parents in promoting play in children's lives. The importance of play cannot be over-emphasized; it is what children do - how they learn. Infants and toddlers with significant disabilities are often limited in their opportunities to play. During the time when typically developing children are learning that their actions have an effect on the objects and individuals within the environment, children with disabilities can be learning very different lessons. Findings suggest that parents of children with disabilities are less playful, and relinquish control less often than parents of typically developing children. In addition, these children are learning that their ability to control and interact with the environment is limited. Finally, the time spent with these children by a parent, caregiver or therapist is not focused on play, but may instead be focused on attaining specific skills.

When play is limited, the ability to learn and develop the skills and attitudes of accomplishment associated with play are also restricted. While the need to find options that will promote play and development in this young population is apparent, innovative intervention ideas have been slow to develop.

The Let's Play! Project is federally funded to identify ways to assist families in promoting play in their young children with disabilities. In Let's Play!, the keys are in promoting play through access to play materials, and by using assistive technology (AT) to give the children this critical access. Parents and project personnel then work to develop play solutions that capitalize on child and family strengths and address barriers to play. Typical AT solutions revolve around "low tech" assistive technology. "Low-tech" is broadly defined to include items that are readily available, are inexpensive and do not require extensive training to use - items that are "family friendly".

AT items that can be used to support play include:

- adaptations to commercially available toys making them easier to activate or access
- the use of primarily commercially available positioning items that make it easier for the child to sit alone, or lay on his/her tummy or back and still be able to reach the toys
- those items which help a child move about his environment
- the use of specially adapted toys and appropriate switches and interfaces
- the use of communication aids to enhance playful interactions

We take this low-tech approach for different reasons. First, many parents of young children with disabilities are not "ready" for highly adaptive equipment. Adapting what the general population uses helps to normalize the family's environment and de-emphasizes the disability. Additionally, many families today are "on the move". Options for positioning and play must be found that are lightweight, portable and durable; those that can be used across environments. Secondly, low-tech options are often less expensive and can be more flexible in meeting the needs of the child/family across environments.

This manual, developed through the Let's Play! Project looks to provide ideas and strategies in the use of assistive technologies to promote the playfulness of young children with disabilities. It is intended to promote the creation of play environments that reflect the interests and abilities of the children they work with.

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IMPORTANCE OF PLAY

During the first years of life, the roles of children are characterized by play. They actively explore and interact with people and objects in their world. Mouthing, banging, touching, grasping, holding, rolling over, and clapping are just a few of the actions which furnish information to the child. These interactions provide the child with an understanding of control and causality. Children repeat actions to establish relationships between materials and objects. They then modify their interactions to examine new relationships. During the early years language emerges and play unfolds, from exploration to using objects to pretend and mimic activities in the world.

Play and playfulness. Although play is difficult to define, it is easier to recognize. Children are playful if they are intrinsically motivated, internally controlled, free to suspend reality, and able to set and maintain a play frame (Bundy, 1997). Play is a critical occupation of childhood. In fact, it is the main occupation of early childhood (Parham & Primeau, 1997). Play, often described as the "work of children", is far more than a job to be completed. Play starts and stops when the player wants it to. Its' self-initiated, self-directed quality offers a flexibility not found in work. Unlike working, a player can do what he wants to do, including changing play at any time, restructuring it, choosing a new play partner, or restarting the game (Florey, 1971; Takata, 1971; Wright & Nomura, 1985).

Play investigators have indicated that through play children practice and master a repertoire of skills needed for later childhood and adult life (Piaget, 1962; Takata, 1971). They learn to solve problems, make decisions, persevere, and interact with the people and objects in the environment (Robinson, 1977). They develop language, symbolic thinking, social skills, and motor skills (Athey, 1984; Florey, 1971; Lewis, 1993; Vandenberg & Kielhofner, 1982; Whaley, 1990). In addition there is an essence to just playing, with no ulterior motive of gaining and/or refining skills, that is equally important to typical development (Pierce, 1997). Play is the basic nature of young, typical children.

Parents of typically developing children are seen as the facilitators of play as they respond to and promote the interactions of their child. They function as play partners, and companions, following the play initiations of the child. They begin with the spontaneous interactions their children have with toys, and expand play repertoires by adding complexity to the play process. For instance, a parent will naturally follow the child's lead as the child begins to build with Legos. Expanding on this skill, the parent will ask "Is that a house for the baby?", placing a Lego figure in the middle of the structure. As the child responds to this new level of make believe play (symbolic play), the parent continues to match and challenge the child in play. As the child matures the parent changes the game to meet the new developmental skills that become apparent in play (Mahoney & Powell, 1988). These parents are permitted time to "just play" with their child.

The benefits of play, and the areas of development that can be impacted by play in the typically developing child are numerous. According to Piaget (1962), play and cognitive development are inseparable. Other investigators have associated play skills with development of emotional, social, communication, and physical/motor development (Athey, 1988; Curry & Bergen, 1988; Kaplan-Sanoff, Brewster, Stillwell & Bergen, 1988). For infants and toddlers, play is the primary mode for learning about how objects work, and for learning the skills they will need to interact with people in their worlds. Success in play means that the child will experience the positive attitudes associated with productivity, satisfactory quality of life, meaningfulness and value, all critical to sustaining success at school and work (Clark-Stewart, 1973; Barnard, Bee & Hammond, 1984; Bradley & Caldwell, 1976, 1984; Bradley, 1985). According to Vygotsky (1967), when a child is engaging in play he/she is functioning close to his/her optimal developmental level. Successful play interactions, and successful environmental control, lay the foundation of success in future learning and work environments (Bradley, 1985; Bradley & Caldwell, 1976; Brinker & Lewis, 1982 1984).

References

- Athey I. (1984). Contributions of play and development. In T.D. Hawkey & A.D. Pellegrini (Eds.), *Child's Play: Development and Applied* (pp. 9-28). Hillsdale, NJ: Erlbaum.
- Barnard, K., Bee, H., & Hammond, M. (1984). Home environment and cognitive development in a healthy, low-risk sample: The Seattle study. In A. Gottfried (Ed.), *Home environment and early cognitive development* (pp. 117-150). New York: Academic Press.
- Bradley, R. H. (1985). Social-cognitive development and toys. *Topics in Early Childhood Special Education*, 5(3), 11-30.
- Bradley, R., & Caldwell, B. (1976). The relation of infants' home environments to mental test performance at fifty-four months: A follow-up study. *Child Development*, 47, 1172-1174.
- Brinker, R. P., & Lewis, M. (1982). Making the world work with microcomputers: A learning prosthesis for handicapped infants. *Exceptional Children*, 49(2), 163-170.
- Brinker, R. P., & Lewis, M. (1984). Discovering the competent handicapped infant: A process approach to assessment and intervention. *Topics in Early Childhood Special Education*, 2(2), 1-16.
- Bundy, A.C. (1997). Play and playfulness: what to look for. In L.D. Parham & L.S. Fazio (Eds.), *Play in Occupational Therapy for Children* (pp. 52-66). St. Louis: Mosby.
- Clarke-Stewart, K. (1973). Interactions between mothers and their young children: Characteristics and consequences. *Monographs of the Society for Research in Child Development*, 8.
- Curry, N., & Bergen, D. (1988). The relationship of play to emotional, social, and gender/sex role development. In D. Bergen (Ed.), *Play: As a medium for learning and development: A handbook of theory and practice* (pp. 107-131). Portsmouth, NH: Heinemann.
- Florey, L. (1971). An approach to play and play development. *The American Journal of Occupational Therapy*, 15(6), 275-280.
- Kaplan-Snoff, M., Brewster, A., Stillwell, J., & Bergen, D. (1988). In D. Bergen (Ed.), *Play: As a medium for learning and development: A handbook of theory and practice* (pp. 137-161). Portsmouth, NH: Heinemann.
- Lewis JM (1993). Childhood play in normality, pathology, and therapy. *American Journal of Orthopsychiatry*, 63, 6-15.

Mahoney, G. & Powell, A.,(1988). Modifying parent-child interaction: enhancing the development of handicapped children. *Journal of Special Education*, 22(1), 82-96.

Parham, L.D., & Primeau, L.A. (1997). Play and occupational therapy. In L.D. Parham & L.S. Fazio (Eds.), *Play in Occupational Therapy for Children* (pp. 2-21). St. Louis: Mosby.

Piaget, J. (1962). *Play, dreams, and imitation in childhood*. New York: Norton.

Pierce, D. (1997). The power of object play for infants and toddlers at risk for developmental delays. In L.D. Parham & L.S. Fazio (Eds.), *Play in Occupational Therapy for Children* (pp. 86-111). St. Louis: Mosby.

Robinson, L. M. (1986). Designing computer intervention for very young handicapped children. *Journal of the Division for Early Childhood*, 10(3), 209-215.

Takata, N. (1971). The play milieu-A preliminary appraisal. *The American Journal of Occupational Therapy*, 15(6), 281-284.

Vandenberg B, Kielhofner G. (1982). Play in evolution, culture, and individual adaptation: Implications for therapy. *The American Journal of Occupational Therapy*, 36, 20-28.

Vygotsky, L. (1967). Play and its role in the mental development of the child. *Soviet Psychology*, 12, 62-76.

Wright, C. & Nomura, M. (1985). *From Toys to Computers*. Christine Wright & Mari Nomura: San Jose, CA.

PLAY OF CHILDREN WITH DISABILITIES

Play in infants and toddlers with disabilities has not been investigated in any great detail. A literature review indicates that the play of children with disabilities differs from that of their non-disabled peers. Play repertoires are reported to be more limited, and play incidences less frequent in children with developmental disabilities (Li, 1981; Kaplan & Kopp, 1983). Children with physical disabilities experience real limitations to play, and their play has been described as more solitary, and the amount of time spent in play is less frequent (Jennings, Connors, Stegman, Sankaranarayan & Medolsohn, 1985; Bergen, 1991). Florey (1971) presents characteristics of play of children with multiple disabilities as sedentary and passive, with a limited availability of materials, an over-emphasis on either large or small motor actions and parental expectations that are either too high or too low. These, she states, reflect "play deprivation" for these children. Thus, specific aspects of play deficits may be related to the type and severity of the disability (Kaplan-Sanoff et al., 1988).

Bradley (1985) suggests that, although toys and play have the potential to have a strong and positive impact on social and cognitive development, frustration can ensue when toys are too difficult to operate, such as they may be for children with disabilities. Toys can become an obstacle to learning rather than a facilitator of the process. Thus, a child's lack of interaction with toys and playmates, and his/her difficulty exerting control over the physical and social environment, can be detrimental to further development (Brinker & Lewis, 1982; Bradley, 1985).

Parents of children with disabilities may unwittingly promote play deficits, and feelings of incompetence experienced by their children. Research suggests that mothers of children with disabilities play less with, and are more controlling of their children than are mothers of typically developing children (Hanzlik, 1989; Hanzlik & Stevenson, 1986; Kogan & Tyler, 1973). Interactions between mothers and their disabled infants indicate that infants provide fewer cues and initiate interaction less frequently than do their non-disabled peers. Mothers of these infants often have a high level of activity and dominate initiations (Rogers, 1988).

This pattern of interaction has been noted to diminish optimal development (Mahoney & Powell, 1988). Interestingly, this pattern changes over time, as parents of toddlers with disabilities have been noted to withdraw from their child, playing less with them as the child grows older (Rogers, 1988).

For parents of young children with disabilities, the definitive role of parent as play partner and companion often shifts to that of a medical overseer/coordinator. Spontaneous interactions become inhibited by the parent's anxiety over the medical condition of their child as well as by the reduced level of responsiveness that many children with disabilities exhibit (Jackson, Robey, Watjus, & Chadwick, 1991). With extra demands on their time and emotions, parents may even forget to have ordinary playful interactions with their child (Gerlock, 1982).

Often professionals may seem to hold the answers and it may appear to the parent that others are better able to provide for the needs of the child (Rocco, 1994). The parent is relegated to the role of observer of the therapeutic interventions, and in-home therapy "aide" for their child. Out of concern for their child, these parents may downplay their own skill and knowledge regarding both play and development.

Furthermore, these children may develop learning deficits that complicate the disabilities they are already experiencing. Children with disabilities have been noted to develop a sense of helplessness and incompetence as a result of their inability to control and communicate with the environment. Mastery motivation, a drive to have successful interaction with the physical and social world, is not developed as the child learns that s/he *cannot* rather than that s/he can do (Jennings, 1985). Such learned helplessness may lead to indifference and apathy in children as young as two years of age (VanTatenhove, 1987).

Clinically, the importance of development in cognitive, social-emotional, communication-language and sensorimotor domains is recognized. However, the contribution play makes to

this infant/toddler development has not received the attention it is due. The medical and therapeutic interventions pursued for children with disabilities, to remediate or compensate for deficits, often do not incorporate play. In fact, play may be entirely absent from such interventions. When play is limited by both internal (individual) and external (environmental) factors, the ability to learn and develop the skills and attitudes of accomplishment associated with play is also limited (Anderson, Hinojosa, & Strauch, 1987).

Disability then leads to a mismatch between a child's innate drive to play and a child's ability to play. We should find this mismatch disturbing. While we readily engage a child in therapy and/or educational programs designed to remediate skill deficits, these interventions are rarely play focused or even playful in nature. They may contain moments of play but the overall emphasis is on skill development. Play and playfulness become lost. It is essential that methods be identified that which can augment existing play abilities or compensate for limitations imposed by disabilities to avoid these pitfalls in the growth process in infants and children with disabilities.

References

- Anderson, J., Hinojosa, J., & Strauch C. (1987). Integrating play in neurodevelopmental treatment. *The American Journal of Occupational Therapy*, 41(7), 421-426.
- Bergen, D (1991, April). *Play as the vehicle for early intervention with at-risk infants and toddlers*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Bradley, R. H. (1985). Social-cognitive development and toys. *Topics in Early Childhood Special Education*, 5(3), 11-30.
- Brinker, R. P., & Lewis, M. (1982). Making the world work with microcomputers: A learning prosthesis for handicapped infants. *Exceptional Children*, 49(2), 163-170.
- Florey, L. (1971). An approach to play and play development. *The American Journal of Occupational Therapy*, 25 (6), 275-280.

Gerlock, E.(1892). *Parent group guide: Topics for families of young children with handicaps*. Nashville, TN: John F. Kennedy Center for Research on Education and Human Development, Families, Infant and Toddler Project.

Hanzlik, J. R. (1989). The effect of intervention on the free-play experience for mothers and their infants with developmental delay and cerebral palsy. *Physical & Occupational Therapy in Pediatrics*, 9(2), 33-51.

Hanzlik, J., & Stevenson, M. (1986). Mother-infant interaction in families with infants who are mentally retarded, mentally retarded with cerebral palsy or nonretarded. *American Journal of Mentally Deficiency.*, 90, 513-520.

Jackson, S.C., Robey, L., Watjus, M.& Chadwick, E.(1991). Play for all children: The toy library solution. *Childhood Education*, Fall, 27-31.

Jennings, K.D., Connors, R.E. , Stegman, C.E., Sankaranarayan, P., and Mendelsohn, S. (1985). Mastery motivation in young preschoolers: Effect of a physical handicap and implications for educational programming. *Journal of the Division for Early Childhood*, 19(2), 162-169.

Kaplan-Snoff, M., Brewster, A., Stillwell, J., & Bergen, D. (1988). In D. Bergen (Ed.), *Play: As a medium for learning and development: A handbook of theory and practice* (pp. 137-161). Portsmouth, NH: Heinemann.

Kogan, K. L., & Tyler, N. (1973). Mother-child interaction in young physically handicapped children. *American Journal of Mental Deficiency*, 77(5), 492-497.

Li A.K.F. (1981). Play and the mentally retarded child. *Mental Retardation*, 19, 121-126.

Mahoney, G. & Powell, A.,(1988). Modifying parent-child interaction: enhancing the development of handicapped children. *Journal of Special Education*, 22(1), 82-96.

Rocco, S. (1994). New visions for the developmental assessment of infants and young children: A parent's perspective. *Zero to Three*, 14(6), 13-15.

Rogers, S. J. (1988). Characteristics of social interactions between mothers and their disabled infants: A review. *Child: Care, Health and Development*, 14, 301-307.

Van Tatenhove, G. (1987). Teaching power through augmentative communication: Guidelines for early intervention. *Journal of Childhood Communication Disorders*, 10(2), 185-199.

THERAPY VS. PLAY

As noted earlier, the elements that make play playful are often missing in therapy and education services. This apparent contrast between the importance of play on development and the lack of focus on creating play opportunities for children with disabilities is quite troubling. All children must have opportunities for play. At times, play may be difficult for a child as he/she has both internal and external barriers to overcome. We find that too often children with disabilities are at risk for "learned helplessness" where they wait for others to initiate interactions (Van Tatenhove, 1987). In finding successful ways for a child to play, the directing parent may see the child's ability to initiate play and move their role from director to following what the child does - - promoting positive responses and fun for all!

Many therapists use toys as therapeutic tools- building on the toy's motivational aspects to the child. However, when the goal of the activity is to "develop extension and grasp" the focus is on what the child cannot do versus what he can do. When a child reaches several times for a toy that is slightly out of reach, his motivation quickly becomes frustration and he quits. There is room for both therapy and play in a child's life. With a play focus, we do not look to remediate a child's skills but to support success. In this case, the goal may be to "interact with toys that are interesting to him". Toys that are engaging to him are presented in a way that makes accessing them easier; i.e. links on an overhead gym to bring the toy(s) closer to his hands/feet or Velcro™ on the bottom of a toy to secure it to a surface so it doesn't move out of reach. Play acts to emphasize what the child can do, what he likes. By promoting play we promote self-choice, self-direction, self-esteem and an independent spirit

Play in Early Intervention Programs

In Early Intervention Programs services are provided which address the unique needs of families with infants and toddlers having disabilities. Within many interventions provided by a range of service providers, play is seen through different perspectives.

1. Interventionists use play as a therapeutic modality when the treatment goals are to improve specific skills within developmental domains (i.e. fine motor, gross motor, cognitive or

psychosocial). For example, a therapist may use the child's motivation to interact with a toy as a way to position him longer on his stomach. The goal here is to shift his weight and to improve accuracy and range of reach. In this case, the toy is used as a distracter.

2. Intervention focused on improving play skills is aimed at expanding the child's play repertoire or ability to interact with the environment through play. Since many motor, sensory and cognitive skills are the underlying component skills that impede a child's performance during play, these areas are targeted with this approach. The underlying assumption is that play skills will automatically improve once the child gains skills in the component areas (Morrison, Metzger and Pratt, 1996). For example, toys are provided which will encourage a child to use both hands to play, therefore strengthening "bi-lateral hand coordination", which can then be used in higher level play activities. The goal here is to increase the quality and quantity of the play interactions.

3. Intervention focused on facilitating playfulness emphasizes the quality of a child's play and not just the performance of specific play activities. Services using this approach allow a child to initiate interactions, and builds on what is happening, sharing his joy. As a child guides the play, he or she also guides the providers role in play (Bundy, 1997). For example, a child is provided with choices and selects "guys" to play with. He is engaged in a pretend play scenario with both good and bad "guys". He reaches in different planes to rescue the guys from a burning building and to capture bad guys. The goal here is to have fun with toys and people in the environment. Through play the child incorporated motor, sensory, language, creative and cognitive skills while not looking at a specific end goal.

Although is it important to use all three approaches, our focus is on promoting playfulness. For many children this means setting up opportunities where children are in control and can be successful. As barriers to play exist, assistive technology is one solution to begin to address them.

PLAY STAGES

The following are descriptions of emerging play stages for infants and toddlers. Although there is a variety of toys that meet the interests of young children at each stage, keep in mind that it is not the toy per se, but how a child plays with it that determines the stage. As you consider the range of available toys, take into account that well-designed materials will "fit" into more than one category.

Sensory/Exploratory

Children use these items to shake, grasp and look at. The young child uses his/her hands, feet and mouth to "explore" objects in the same undifferentiated way with repetitive movements. This category includes rattles, teethingers, shakers, as well as overhead gyms and mobiles.

Exploratory/Combination - A child begins to use one object to interact with another object or surface for its sensory response. Child bangs objects against a surface, drops them, and then finds them. The object is dropped for the sake of dropping and producing sound and/or movement.

Functional

A child explores a toy to see how s/he can make it "work". This can begin with emptying containers (dumping) and knocking blocks down. These items often have a specific design feature to turn them "on"; the toy design "speaks" to them! A consistent response from the toy occurs to develop cause and effect along with associative relationships. Toy examples include single-function (spinning top, jack in the box, pooh chime) and multiple-function toys (musical keyboards, busy boxes).

Functional/Combination - Children are involved with combining toys and actions: shovel and sand or birdseed, spoon and bowl, in/out of containers, putting blocks on top of each other.

Functional Imitation - Items are used to imitate real life routines. At first the action is directed toward the child her/himself. Children then begin to imitate real life routines by offering a parent a cookie, combing their own or a doll's hair or pouring pretend juice into a cup. They use real or miniature props to mimic what they have experienced.

Mental Manipulation

A child begins to use materials and incorporate planning, coordination, problem solving and creativity. Materials are used in simple and then more complex ways.

Shapes and Sorters - Matching and contrasting shapes and sizes characterize these toys. A wide range of items is found, from same size single shapes to varied shape sorters. Puzzles are included here.

Construction - Young children begin constructing by placing items on top of or next to each other. Foam blocks and magnet blocks support early success. More complex construction includes duplos and bristle blocks.

Pretend/Fantasy Play

A child begins to imitate actions seen or heard about and to build on these experiences to create new ones. Using toys with theme environments (farms, airports, drive-through restaurants) helps the child to re-create experiences and routines. Small items (food and kitchen items, water play, cars/vehicles and "people" models) which relate to the theme are included. As children get older, the representational objects get increasingly abstract- i.e. a peg for a bottle.

Creative Expression

A child participates in interacting with a variety of expressive materials where s/he combines manipulation, creativity and planning. Items include open-ended materials such as play-dough, paint and brushes, markers, finger paints, etc., as well as tools and surfaces that are available and adaptable.

Literacy

Children enjoy listening to language at a very early age. Conversation, rhymes, songs and books are offered. A variety of books should be available for young children; cardboard and cloth books hold up well during a child's exploration of them. Along with songs and rhymes, books with photos of real objects and familiar people and settings are a good place to start. This play category also includes dramatics, puppet shows and role playing.

ASSISTIVE TECHNOLOGY PLAY SUPPORTS

Early on, AT and play materials are examined as they relate to the needs of young children and their families. "Low-technology" solutions are preferred by families as they are readily available, inexpensive and offer a wide range of options for families. Several categories of AT can be used in combination to create interactive play environments unique to each family's needs. AT categories with examples of low-tech applications include:

- Adapted commercial toys
- Positioning
- Mobility
- Switches
- Computers and
- Communication

Selecting & Adapting Commercial Toys

We look to commercial, off-the-shelf play materials in order to empower families to identify, select and try out items that their child can use. Families have reported that "My other kids just played; I don't know what Michael should be doing"; or "When I go to Toys R Us, all I see are toys Sandy can't play with- how do I know what will work?" By assisting families to identify the toy's sensory features that appeal to their child and to adapt them to make them easier to use, families begin to reclaim a critical parent role.

When looking for toys suggest that families try them out before they buy. Many toys include several characteristics that may or may not be appealing to a child or a parent. Children have definite preferences! What a child likes may not be the same as a parent's preference. The following list of questions will help to identify appealing and successful toy features. Some things to look for are listed below:

Toy Characteristics

Sensory

Sound - Does the toy make sound? If so, is the sound potentially calming, or louder and potentially arousing? Is the sound potentially startling? Is the tone of the sound harmonic or brassy? How long after activation does the sound continue? Can you control the length of this?

Visual - Is the toy attractive? Is the color of the toy bright and/or contrasting, are they simple or complex? Is the pattern "busy" or "quiet"? Do the visual features invite touch? If the visual features are lights, how are they activated? How bright are they? Are they linked to sound? Can they be disconnected from sound?

Touch - What does the toy feel like? Is it soft, hard, sleek or smooth, rough, tickly, cuddly? Is there vibration? Is the touch likely to be startling? Does the touch promote grasp? release? Does the feel of it encourage active exploration? If so, with the whole hand or with isolated finger movements?

Access

How is the toy activated? Does the activation require minimal movement, or more, on the part of the child? What movements are required? What body parts can activate the toy?

Where must the toy be positioned for activation? Can its position be adapted to meet the needs of the child?

Does the toy have handles or knobs that the child must use? Are they of an appropriate shape and size for this child? If they are not, can they be easily adapted?

Are there multiple parts to the toy which need to or can be activated? Are these multiple parts inter-related such that all must be activated to make the toy interesting?

Alternatively, the multiple activation points may provide the toy with some variety.

Physical

Size - Small toys may be inaccessible to children with unrefined hand skills, or limited motor control; large toys may be inappropriate for placement on a lap tray, table or small bench.

What are the physical characteristics of this toy?

Construction - How is the toy put together? Is it stapled or glued? What is it made of: wood, plastic? These factors may influence the safety, weight or durability of the toy/device.

Stable - Is the toy stable by itself? Does it require one hand to stabilize it while the other hand manipulates it?

Versatile - Does the toy provide some variety in and of itself that may promote use of the toy in more advanced ways as the child develops skills?

Adapting Commercial Toys

As parents prefer to purchase toys from local stores, simple adaptations to the toys can make them easier for a child to use. These solutions include ways to extend, stabilize and make them easier to use; the design of the toy's access method and the abilities of the child will guide the modifications. The following are examples of toy positioning and access aids.

Attachers are materials that are used to bring items closer to the child, making reaching, grasping and playing less "work". Several materials can be used. Links come in a variety of shapes and sizes and can be used to lower play materials from an overhead onto the child's

body for initial "connection". Sometimes children are so intrigued by the links themselves that they never get to the toy at the end! Assuming that the toy is more interesting than the links, try using ¼ or ½ inch elastic for a pulling effect, shoelaces (straight or curly), or snap straps (in sewing stores for toddler pants).

Try using these attachers to "anchor" a toy to a tray so that it can't get "lost". A child simply pulls up on the links to retrieve the toy.

Extenders are materials that can be used to build up certain access features. They help children press too-small buttons or keys or make markers easier to hold. Materials include:

- Magic Model Clay (Crayola) can be shaped and super glued onto an area on a toy to make a knob larger or a key longer.
- Cylindrical foam padding comes in a variety of colors and widths and is a "quick-fix" to make crayons, markers and spoons easier to use. Sponge rollers can be used in the same way.
- Popsicle sticks can also be glued onto piano keys or like shapes to provide easier access.
- Larger kitchen knobs can be found in hardware stores to replace smaller ones or to make puzzles easier to complete.

Stabilizers are materials that support play by preventing a toy from moving out of the child's reach or vision. Often toys need less adaptation if they can stay "in one place". They can be used to hold a jack-in-the-box in place or connect a communication device to a crib.

- Non-slip materials: Stabilizing materials include "mug mats", rug mats and a Rubbermaid non-slip material that is commercially available and can be used in table length strips.
- Show loop is a fabric that acts as "female velcro". When glued to a play surface (tray, table top, etc.), it will firmly adhere to an object with "male velcro" on its base. For example, by

putting strips of male velcro on the base of a puzzle, a child can more easily insert the pieces, as the base is stationary.

- Dual Lock is a material that is stronger than velcro, but not as easily removed.
- Carpet squares (indoor/outdoor) provide some stability and also work with male velcro, but do not fasten as firmly as show loop.
- Bed trays with tilt tops can be used as floor tables and covered with show loop or carpet squares for a more stabile play environment
- Magnets adhere well on cookie sheets

Confinement materials keep toys from moving too far away from a child. Items such as hula-hoops, box tops or planter bases help a child to control his immediate play environment.

Vendors

Creative Educational Surplus

1000 Apollo Rd.
Eagan, Minnesota 55121
Phone (800) 886-6428
www.creativesurplus.com/welcome.asp

Sammons

P.O. Box 386
Western Springs, IL 60558-0386
Phone (800) 323-5547
Fax (800) 547-4333

Right Start

Right Start Plaza
5334 Sterling Center Dr.
West Lake Village, CA 91361-4627
Phone (800)548-8531

Lockfast, Inc.

10904 Deerfield Dr., P.O.Box 42488
Cincinnati, OH 45242
Phone (800) 543-7157

Perfectly Safe

7245 Whipple Ave, NW
North Canton , OH 44720
Phone (800) 837-5437
Fax (216) 494-0265

Products

Velcro™

Get a Grip - foam grips
Racy Laces

Dycem

Foam Grip

Fun links

Show loop

Stringers - Magic shoelaces

AT Positioning Items

Children with disabilities often have difficulty changing and maintaining different positions when they play. The positions that a child can use greatly impact the level and quality of play. A child who at 16 months old is unable to sit independently is limited how she can participate in activities. Gravity makes it challenging to bring her hands together to play and her visual gaze of the world is limited to what is hanging above. By being supported in a sitting position, she can watch both hands interact with toys and can more readily engage in a wider variety of family routines.

Families report that low-tech positioning devices often better meet an active family's needs by providing options that are easy to transport, can be used in more than one environment and can support more than one position. A range of such supports is available to help children play in different positions.

Child Positioning Products

On Back

In this position the child's entire body is supported. Propping the child's head up lets him/her feel more comfortable and allows him/her to visually explore the environment. Options for items with head/neck support include:

- **Boppy** - standard-sized or junior-sized (Camp Kazoo) Available at local toy stores.
This horse-shoe shaped pillow provides support for a variety of positions.
- **Rolled towels, pillows or stuffed animals** placed under the head, neck and knees.

Semi Reclined

In this position a child's body continues to be supported, however, he/she is tilted to a more upright posture. This position allows the child to view more of the environment including

his/her hands. Some equipment which may assist with this position include:

- **Soothing Bouncer Seat** (Fisher Price) This item provides a gentle vibration as well as the opportunity to bounce. Its sling design cradles the baby.
- **Reclining Three-Stage Seat** (The First Years) This Booster seat provides 3 inclinations of seating: 2 semi-reclined and one sitting"up".

Side-Lying-

This position allows children to see their hands in front of them. Additionally, it makes movement of the hands/arms easier as a child does not need to work as hard to overcome gravity. Supports to position a child in side lying include:

- **Prop-a-Baby (Dex), Curved Side n' Back Sleeper** (Graco), **Airflow Sleep Positioner** (The First Years) All items are designed for side and back sleeping, but are also useful for playing.
- **Tumbleform Sidelyer or Tadpole** (Tumbleform - Flag House and Sportime Abilitations Catalogs)
- **Rolled towels, pillows, couch cushions** can be used in front of and behind a child for side support

Tummy

This is a good developmental position for children as it helps them strengthen the muscles in their neck, back, shoulders and hips. However, this position is difficult for children to stay in for long periods of time. Begin by placing children on their tummies for short periods of time. Providing additional support under a child's shoulders will make this position easier to tolerate.

- **Positioning Wedge** (Tumbleform -Sportime Abilitations and Flag House catalogs) Wedges come in several heights to be placed under the child's chest.
- **Boppy-** standard or Lay and Play (Camp Kazoo)
- **Rolled towels or pillow** placed under arms and across chest.

Sitting

This is a great position for children to see and interact with their environment. Consider "low tech" options for ease of set-up, portability and choices for the family in different environments.

- **Safety Sitter** (Ecology Kids) Cloth wrap to secure child in seat, shopping cart or highchair.
- **Boppy** (Camp Kazoo)
- **Tot-Loc Chair-** (Graco) Attaches to table
- **Fold-up Booster with tray** (Safety 1st)

Providing a tray or table for front support while a child is sitting can free up a child's hands to play.

- **Floor bench** (Rifton)

Standing

This position allows children to see and interact with their environment from another perspective. Depending on the child's ability to stand, varying levels of support may be necessary.

The following positioning items can be further adapted by adding pillows, towels or pool noodles for additional support.

- **Exersaucer** (Evenflo), **Entertainer** (Graco), **Bounce n' Ride Buggy** (Safety 1st). All of these items allow the child to move, bounce and/or turn in place.
- **Safe Stepper** (One Step Ahead) The seat swivels 360° to let the child walk in any direction while the base remains stable.

Alternate Options

Using Everyday Materials to provide alternate positioning options for children:

- Towels rolled and secured with rubber bands or belts to adjust positioning
- Pillows to provide head or trunk control, lower extremity abduction
- Car seat head positioner for head and trunk control
- Stuffed animals for hip abduction
- Pool "noodles" can be cut and shaped for side supports, pommels, etc.
- Tires or snow tubes for supported sitting or semi-reclined position
- Cylindrical cardboard poster mailers or "paper cores" for prone positioning
- Plastic basins or laundry baskets as corner sitters
- Rubbermaid non-slip materials placed under a child's bottom
- Belts: used as straps
- Large coffee cans to elevate toys off of floor
- Cardboard boxes to use as floor table or tray

Mobility Items

Children may need assistance in moving to explore their environments, a critical component of play. AT devices are available that encourage and support children to move. Many families tell us that they are not "ready" for specialized equipment for their young children; they prefer to use items that appear less adaptive. For example,

- Commercial walkers that the child stands behind and pushes can provide adequate support for many children; the family's therapist is contacted for input before these are tried. Other commercial walkers can be adapted with weights to make them more stable or by applying Velcro around the wheels, which when making contact with some types of home carpeting, adhere to the carpet and slows down the walker.
- Low to the floor rocking and riding toys can also provide options for children to experience movements in supportive positions.
- Easy-to-use climbing and sliding equipment for toddlers and other items such as well-designed swings for backyard play can often be found in local stores.

By suggesting certain design features, we help families to select commercial items that can meet their child's needs.

Switches, Adapted Battery-Operated Toys and Interfaces

These specialized AT items make it possible for children to turn a toy on and off with a movement of a body part against a switch. Requiring only that the child have a single movement that s/he can control, a variety of switches are available which meet the interactive needs of children. By employing special interfaces such as timers, latch devices and series adapters, we can assist families in identifying ways that a child can develop cause/effect relationships, and play cooperatively with brothers and sisters.

When adapting toys to be used with a switch, we provide a family with a single battery-operated toy and a *battery adapter*, and show them how to insert the adapter to modify the toy for switch use. Using this strategy, families report the child using a switch to activate several additional battery-operated household items. Within this family-centered, play-based model, the family is supported with AT knowledge to create their own play opportunities for their child.

The project has also applied single switch use with motorized scooters, giving the young child the opportunity to move through space independently at a young age. The forward moving scooter is designed low to the ground, which keeps the child at an appropriate height for his/her age.

Computer Hardware and Software

Adapted computer peripherals and appropriate software for families interested in computer activities for their children. The Lending Library includes computer peripherals and software programs to be use with home computers. To further support families to use available resources, software programs are suggested and websites identified for families with Internet connections. Families can download software programs to review for their child's use. CD-ROM's that can be used by both Macintosh and Windows machines are also included. There exist a good number of well-developed software programs for young children that can be easily adapted.

We have found that a single switch (reduces control to a single key) or the use of a touch window (the child simply presses a spot on the screen to work the computer) is the most appropriate input device for this population.

Communication AT Items

The model supports devices that use recorded messages to incorporate language into play and other daily activities. They provide a way for a child to use a voice to communicate.

Devices that offer single or multiple message choices are available. Used with full-color or line drawings they help the child to select what s/he wants to say. Some communication devices (Big Mack (AbleNet), Say It/Play It (Enabling Devices) and Tech/Four (AMDI) can act as a switch interface to include a message which is heard when a toy is activated.

This strategy is frequently used to enhance opportunities for pretend play for young children with disabilities.

CREATING PLAY ENVIRONMENTS

Environments that combine some or many of the AT supports described above can be created to meet play outcomes of children and their families. Almost any area of the home can become a safe play environment and most daily routines can be made more playful with the addition of items and strategies that promote participation and fun.

The following section will present options that have been used by families in creating play scenarios. By discovering that many basic elements can be added to environments and routines that are unique to each child, families are empowered to continue this "wizardry". The suggestions following are the result of a "team effort"- where families create these milieus with their EI providers - the kids are in charge of being playful!

The following are the components we combine to promote play and playful interactions:

- **Positioning Options for Children**

AT supports that provide new ways to play in different positions. These can include materials to ensure the comfort and safety of children in getting "ready" to play. Supports that encourage movement, from rolling to walking may also be found here.

- **Presenting Options for Toys**

The way toys are presented to children will impact how they are played with. Toys that are easy to reach or that have parts emphasized for interaction are more appealing to a wide range of children. Adaptive strategies are included here.

- **Play Materials and Strategies**

Toys and play materials are vital elements of a play environment; strategies to encourage playful interactions are equally important. Play tips assist to enhance playfulness.

Cribs

A young child spends many hours of the day in a crib. Although its primary purpose is to provide a safe and comfortable haven for sleeping, it can also be seen as a secure area for play. Although safety concerns restricts the use of loose pillows, blankets or toys when a child is alone to sleep, with supervision, the crib can be used for independent play.

The crib provides a place to encourage movement. Items that respond to any movement, and give the child feedback when moved against are great for crib play. The crib's confined boundaries affords a place to attach and anchor items from mobiles to busy boxes and switches.

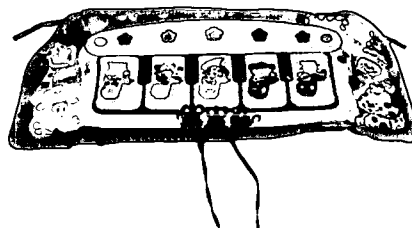
Positioning Options for Children	Presenting Options for Toys	Play Materials/ Toys
<p>Side-lyers</p> <p>Sheepskin or other plush/soft surfaces</p> <p>Waterbags for resistance when move against</p> <p>Wedges or rolls to elevate head or legs</p>	<p>Overhead bars</p> <p>Mobiles</p> <p>Bumpers; crib sides</p> <p>Crib footboards</p>	<p>Mirrors</p> <p>Switches & early communication devices</p> <p>Rattles, pull toys, activity centers</p> <p>Kicking toys</p>

Examples of Supports

Pat Mat/Water Creatures (Rainbow Mountain, Inc.) Constructive Playthings
 A water bag can be used to provide support- as well as resistance to any movement made by a child when placed in close proximity. Children can push against it with hands, feet and other body parts.

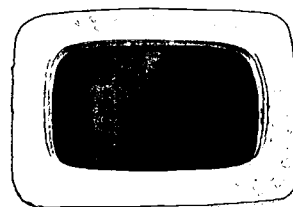
Kick & Play Crib Piano (Fisher-Price)

When placed at the foot of the crib, a child can kick against it for lights, music and sounds. Children often have more strength and control in their legs/feet than in their hands.



Mirror (Infantino, Inc)

Mirrors of various shapes and sizes can be safely hung on the rails of a crib. Mirrors reflect light and any movement in the room. Babies are most fascinated at an early age with their own facial expressions!



Whoozit Bumper Book (Hoopla by Andre)

This book when fully opened and tied onto a crib rail, provides an immediate activity center for look, touch and feel.



Whoozit Activity Spiral (Hoopla by Andre)

Play with the textures and sounds from the hanging toys on this 6" spiral, or hang baby's favorites from it.



BIGmack (Ablenet)

Record a single message. The baby presses the switch to play it. Attach with Velcro to the crib sides.

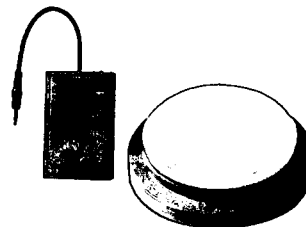


Child Illustrations

Maureen enjoys playing in her crib- it's nice to wake up with favorite things to do nearby. This Activity Arch (Maya Group, Inc.) holds some favorite toys that she can see to reach when the sun it up or the lights are on. Putting things in her mouth is what she likes, so her family makes sure that toys with links and elastic are available for her.



Alex particularly enjoyed the mobile in his crib. He was limited in what he could do due to cognitive limitations. Since the mobile had batteries which provided movement and music, his parents asked if there was any way for Alex to turn it on and off by himself. A battery adapter connected to a remote receiver (Ablenet) was attached securely on top of the mobile. This allowed a switch to turn the mobile on. A built-in timer mechanism kept the mobile going for 10 seconds every time the switch was pressed.



Alex uses the switch to turn it on as often as he likes.

Crib Play Tips

- Maximize the child's ability and interest in moving by putting items near feet, arms and sides that act in response when pushed against. For example, a "kicking keyboard" tied at the foot of the crib, or water bags next to the sides are fun as they act in response when the child rolls or moves.
- Nonverbal children can participate in going to bed and waking up routines with the use of a switch with a single message tape. Recording good-night messages or prayers helps a child play an active part. To let parents know the child is awake, any message will be picked up by the monitor in the bedroom - much better way to start a day with "Mama, Dada, come and get me- I'm up!" than loud noisy crying.
- Mirrors are interesting, simple, affix easily to side rails and offer hours of exploration by a favorite little person.
- Less is better when it comes to the number of stuffed toys in a crib or items hanging at one time. A child may be better able to notice and play if only one or two options are offered.

Bathtub

Bathtub play has a dual purpose - getting clean while having fun in the water! This soothing medium provides a resistant quality where toys that are pushed down, pop up! Items float, move away and splash in the water. As in any environment, safe and secure positioning aids help the child to interact more fully. Children experience a different perspective of movement- of their own bodies and objects- during bathtub play.

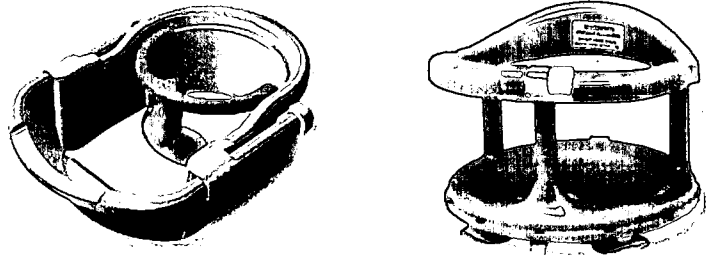
Make sure you have plenty of containers and toys for bathtub fun. Some ideas: tea strainer, colander, any container with holes, canisters scoopers, eye dropper, plastic boats and blocks, squeeze bottles, and sponges of different varieties and sizes.

Positioning Options for Children	Presenting Options for Toys	Play Materials/ Toys
<p>Tub seats/tubs</p> <p>Bath Mats</p> <p>Baskets</p>	<p>Buckets</p> <p>Suction cups</p> <p>Sides of the tub</p>	<p>Floating toys, balls</p> <p>Squeezable objects for squirting</p> <p>Scoops/containers</p> <p>Foam shapes, sponges</p> <p>Foam soaps, paints</p> <p>Basketball hoops</p>

Examples of Supports

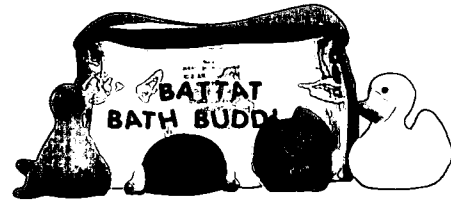
Tub Seats and Tubs (1st Step)

This seat, with base suction cups, provides secure support for infants and young children. Both examples can be used as a "tub within a tub". A range of options is available to support children to safely sit and play.



Scoop + Squeeze Bath Buddies (Battat)

Using soft toys that squirt water with containers to "catch" them can provide hours of bathtub fun. These "squeezeies" are especially easy to use.

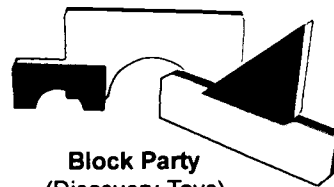


Sponges & Foam Blocks

Foam and sponge shapes are available for bathtub play, in a variety of shapes and colors. They float, pop up when pushed under the water and stick on walls and tub sides. Sponges drip water and squeeze easily while the texture of the foam material invites children to bite on them- test them out first for durability!



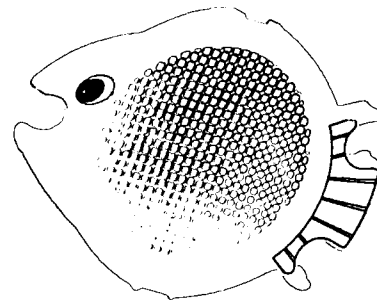
Growing Sponges
(Gerber)



Block Party
(Discovery Toys)

Sand & Water Toys (Battat)

Another toy source for water play is sand toys. Water flows through the sifter holes at a fast and steady pace. Buckets can hold floating fish, and shovels move water around.



Child Illustration

Maria looks forward to bath time as she likes the way the water feels and moves when she moves her arms and legs slowly, then fast and up and down- splashing water all over! Her mother fills the tub with water, then balls, so that Maria finds one each time she pushes her hands down on the water. She reaches around and through the balls searching or feeling for other floating toys. As Maria is blind, the bathtub provides lots of opportunities to feel textures and hear different sounds- and the sides of the tub are always there. Spreading soapy cream on the sides feels gooey!

Bathtub Play Tips

- Squeeze Play - lots of materials are fun to squeeze and watch the water run out; soft sponges, turkey baster, soft toys that squirt, etc.
- Try scooping water with cups, hands, or objects with nets.
- Sand toys make great water toys.
- Affix a pool noodle across the top of the tub and hang various items from it.
- Take the fun of the bathtub outside in warm weather.
Small pools and inflated rafts work well.
- Bath tub sides are great for drawing with foam or crayons.
Foam shapes stick well to tub sides too.

*NOTE: It is essential that children be supervised closely while in the bathtub.
Never leave a baby unattended in the bathtub.*

Sitting, Chairs & Trays

Playing with toys while sitting up is a classic posture. Pianos are played, tea is poured and drums are banged in this position. Some children require supports to sit securely so they can better interact with toys. Using trays or tables provides a place to put toys on, which helps children to immediately notice them and access them for playing. When children are new to sitting, present toys that take little effort to create a response- just push, swipe or bat to get a reaction. Gradually provide a variety of toys as well as toys with multiple pieces.

Floor tables bring toys to the child and also provide a space for two or more to play.

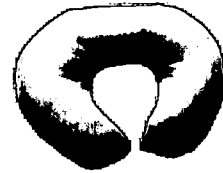
Play options when sitting up are limitless!

Positioning Options for Children	Presenting Options for Toys	Play Materials/ Toys
<p>Booster Chairs/tray</p> <ul style="list-style-type: none"> ◦ Semi-reclining ◦ With pommel <p>Corner Chair</p> <p>Boppy Use 2- stacked</p> <p>Play Inner-Tubes</p> <p>Caregiver lap</p> <p>Laundry Baskets</p>	<p>Stabilize</p> <ul style="list-style-type: none"> ◦ Velcro ◦ non-slip material ◦ dual lock <p>Floor tables</p> <ul style="list-style-type: none"> ◦ Breakfast trays ◦ Plastic floor trays <p>Boppy around front of the child</p>	<p>Rocking toys</p> <p>Keyboards, busy box</p> <p>Shape sorters, stackers</p> <p>Drawing materials, playdough</p> <p>Books</p> <p>Magnets</p>

Examples of Supports

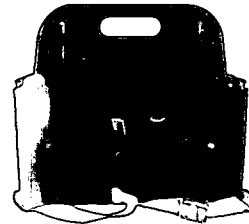
Boppy (Camp Kazoo)

Boppy is a crescent shaped pillow invented to support babies in a variety of positions for play. Boppys come in several sizes (regular, medium and itsy) and fabrics.



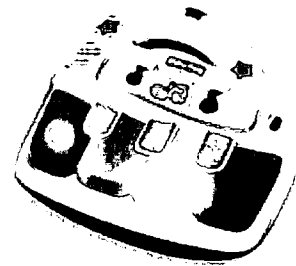
Booster Seat (Safety 1st)

This booster chair can also be used for floor play. A yellow tray helps to hold the child up and provides a surface for toys. Additional supports can be added to ensure upright sitting.



Sparkling Symphony Piano (Fisher-Price)

This piano is a good choice for the beginning "sitter" as it is easy to use and reacts with lights and sound when any key is pressed. It requires a very light touch and is one of the "Sparkling Symphony" electronic toys from FP.



Switch & Toy:

Buddy Button (TASH, Inc.); Baby Biff Bear (Iwaya Corp., Enabling Devices)

Children like to make things happen. When the blue switch is pressed, the bear alternately moves and then growls while shaking his head. Turning the toy towards the child ensures the child's involvement.



Dunk 'n Clunk (Sassy)

For the more advanced "sitter" look for flexible features in toys that promote their being used in a variety of ways. Sitting frees both of the child's hands for play. This bucket and set of rings has been used by children as rattles, "bangers", in/out container, shape sorter, lunch box, purse and water pool. Can you think of other ways to play?



Child Illustrations

Although Tommy has a therapeutic seating system for eating and going outside, he likes to be on the floor with his older brother. He enjoys watching the beads spin on the Mini-Dome (Enabling Devices), but really likes to feel the vibration that goes with them. His "throne-like" chair consists of 2 stacked boppys. Tommy is "sandwiched" between the couch and a floor table- keeping him secure front and back. With this setup, he can play on the floor and make the beads spin "all by himself".



Eric uses an off-the-shelf booster chair with a tray to sit and play. His family used parts of foam pool "noodles" to secure him in an upright position. Lateral supports are attached to the



back and sides while a "pommel" helps him from sliding out of the seat.

This was made by scooping out two sections for his legs. Non-slip material also helps to keep his bottom in place. The tray is large enough to hold toys that he liked to use, like this switch to turn the "Coconut Band" (Metro- Kapable Kids) on and off. His sisters dance while he plays the music!

Seated Play Tips

- Children play most often on the floor. Get down and play there with them.
- Consider more than one option for sitting. Sometimes weight, proximity to others and portability are primary factors for families.
- Use a variety of stabilizers (described above) to keep toys within reach.
- Consider inner tubes, laundry baskets, sweater boxes, etc. as seating options
- Use a variety of materials for comfortable, stable sitting: phonebooks, stuffed animals, pillows, etc.
- Boxes and large coffee cans offer table-like surfaces for play.

Floor Play

Playing on the floor offers a wide variety of options from playing on your back, tummy, or side to rolling, and crawling. Floors give lots of room to roam or can be sectioned into areas. Play environments begin with what a child lies on: a soft blanket, carpet, water mat, towel, textured material or play mat. Many of these surfaces react to a child's movement to various degrees. Supports are available to reinforce a variety of positions if the child is unable to maintain or change position on her own.

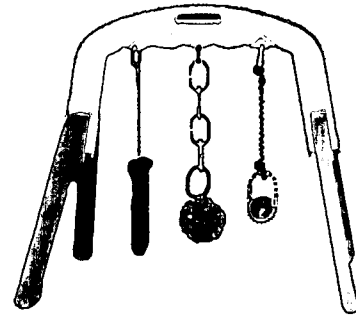
Toys should be interesting to the child and be placed within the child's reach; they are often integrated into the play surface. Watch to see if sound, color, lights, texture and/or vibration are toy features that the child likes. Toys that can be played with in several positions are preferred, but should always be easy to get to and play with. Remember that children are partial to repetition and familiarity in play strategies. You may find a child becoming more playful as he repeats an action over and over again!

Positioning Options for Children	Presenting Options for Toys	Play Materials/ Toys
<p>Prone or supine Boppy Wedge</p> <p>Cylindrical roll or rolled towels</p> <p>Sheepskin and other textured surfaces</p> <p>Water mats</p>	<p>Floor Mats/Activity Quilts- adapted for more interest</p> <p>Overhead Gym with attachers: links, elastic, stringers</p>	<p>Koosch</p> <p>Mirror on wheels</p> <p>Reactive toys that are easy to use</p>

Examples of Supports

Overhead Gym (Fisher-Price)

A wide variety of gyms are available for children playing on their backs. Add favorite toys or household items with links, elastic, or shoestrings. Make sure the baby can easily reach them with their hands or feet- it's more fun that way!



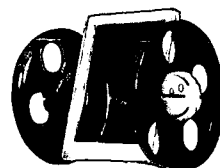
Boppy Lay & Play (Camp Kazoo)

A thinner boppy helps babies play on their tummies more comfortably. Putting toys in front of them makes it fun.



Rolling Reflections (Discovery Toys)

Babies love to look at themselves. The wheels provide a way to pick up the mirror or roll a bit to encourage the baby to do the same!



Child Illustrations

Matthew only needs to bat at the roller to have the bunny pop out. Mom is nearby to help reset the Roller Pop-Up Bunny (Fisher-Price) and to respond to each "pop"!



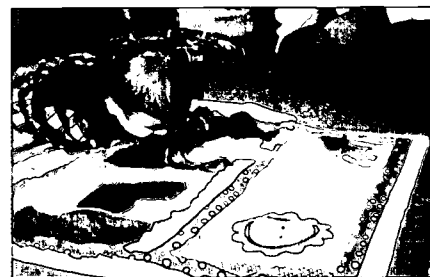
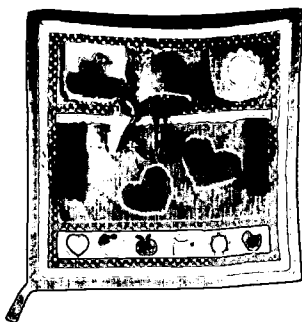
Max needs some help from his mom to see the top of the toy- her leg works just fine.



Dominic can play more easily with the toys on the Activity Links Gym (Battat) as the links allow him to find them easily. By slightly moving his hands, he comes in contact with a toy. The boppy helps him to keep his hands closer together.



Maria is playing on an adapted play quilt. Any commercial play quilt or blanket can be made more interesting by adding new and more attention-grabbing items. We added the crinkle of mylar inside a netted ball and large jingle bells sewn into a sock to make this activity quilt more fun!

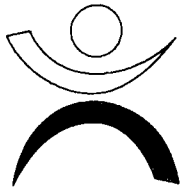


Floor Play Tips

- Provide different positions for the child to play in - toys can be played with differently from various angles.
- Get down on the floor with the child- s/he enjoys the animation of your face and voice.
- Offer toys with various sensory characteristics and responses.
- Provide opportunities for the child to experience movement through space.
- Provide opportunities for the child to reach, grasp and pull objects.

Play can happen anywhere: in a car, in a shopping cart, in a highchair, changing table or stairway - wherever a child is motivated to play and have fun! We hope this guide has given you an opportunity to revisit your own play experiences as well as provided you with some new ideas to promote play in all children.

As we plan to continue to update the products developed through the Let's Play! Project, we are always looking for new ideas, well-designed toys and strategies that are family tested! Please visit our website (<http://cosmos.ot.buffalo.edu/letsplay>) or contact us with your "contributions".



Play Resources for Children with Special Needs

** Switches

* Adaptive Materials

****Ablenet**

1081 10th Avenue East
Minneapolis, MN 55414-1312
(800) 322-0956

****Access first**

PO Box 3990
Glen Allen, VA 23058
(888) 606-6769

***Achievement Products, Inc.**

P.O. Box 9033
Canton, OH 44711
(216) 453-2122

****Adaptivation, Inc.**

224 S.E. 16th Street, Suite 2
Ames, IA 50010
(800) 723-2783

Antoni Toys and Products for the Physically Challenged

232 S.E. Oak Street Ste. 103
Portland, OR 97214
(800) 826-8664

****AssisTech**

P.O. Box 137
Stow, NY 14785
(718) 789-4197

Best Toys, Books, & Videos for Kids

Exceptional Parent Library
(800) 535-1910

Blind Children's Fund

4740 Okemos Road
Okemos, MI 48864-1637
(517) 347-1357

Child Craft

PO Box 3239
Lancaster, PA 17604
(800) 631-5652

Childsworld/Childsplay

Center for Applied Psychology, Inc.
P.O. Box 61586
King of Prussia, PA 19406
(800) 962-1141

***Chime Time (Sportime)**

2440-C Pleasantdale Road
Atlanta, GA 30340-1562
(800) 477-5075

***Communication Skill Builders, Inc.**

3830 E. Bellevue
P.O. Box 42050-CS5
Tucson, AZ 85733
(800) 866-4446

Community Playthings

Box 901
Rifton, NY 12471-0901
(800) 777-4244

Constructive Playthings

1227 East 119th Street
Grandview, MO 64030-1117
(816) 761-5900

**** Switches**

***Creative Educational Surplus**

1000 Apollo Rd.
Eagan, MN 55121
(800) 886-6428

****Crestwood Company**

6625 N. Sidney Place
Milwaukee, WI 53209-3259

Discovery Toys

Contact local education consultant
Martinez, CA 94553
(800) 426-4777

****Don Johnston, Inc.**

P.O. Box 639
1000 N. Rand Road, Bldg. 115
Wauconda, IL 60084
(800) 999-4660

Dragon Fly Toy Company

291 Yale Avenue
Winnipeg, MB R3M 0L4
Canada
(800) 308-2208

****Enabling Devices**

385 Warburton Avenue
Hastings-on-Hudson, NY 10706
(800) 234-6006

***Flaghouse - Special Populations**

150 No. MacQuestern Pkwy.
Mt. Vernon, NY 14222
(800) 793-7900

*** Adaptive Materials**

***Funtastic Therapy Catalog**

RD4, Box 14
Cranbury, NJ 08512
(609) 275-4393

**Guide to Toys for Children who are
Blind or Visually Impaired**
American Toy Institute, Inc. & American
Foundation for the Blind
(800) 851-9955

Hand in Hand-Maine

R.R. 1, Box 1425
Oxford, ME 14270
(800) 872-9745

****HCT - Handicapped Children's
Technological Services, Inc.**

P.O. Box 7
Foster, RI 02825
(401) 861-3444

Invo Tek Corporation

700 W 20th St., ENRC
Fayetteville, AR 72701
(800) 576-6661

****Jesana, Ltd.**

P.O. Box 17
Irvington, NY 10533
(800) 443-4728

J.L. Hammett Co.

P.O. Box 9057-Hammett Place
Braintree, MA 02184-9057
(617) 848-1000

**** Switches**

*** Adaptive Materials**

****Kapable Kids, Inc.**

P.O. Box 250
Bohemia, NY 11716
(800) 356-1564

Kaplan: Infant & Toddler

PO Box 609
1310 Lewisville-Clemmons Rd.
Lewisville, NC 27023
(800) 334-2014

Kids and Things

Box 7488
Madison, WI 53707
(800) 3561200

Lakeshore Learning Materials

2965 E. Dominquez
Carson, CA 90749
(800) 421-5354

The Language of Toys: Teaching

Communication Skills
Exceptional Parent Library
(800) 535-1910

One Step Ahead

P.O. Box 517
Lake Bluff, IL 60044
(800) 274-8440

Oppenheim Toy Portfolio

40 E. 9th St. Ste. 14M
New York, NY 10003
(800) 544-8697

****ORRCA**

218 McDowell Road
Lexington, KY 40502
(606) 268-1635

People of Every Stripe

P.O. Box 12505
Portland, OR 97212
(800) 282-0612

Perfectly Safe

7245 Whipple Ave. NW
North Canton, OH 44270
(800) 837-KIDS (5437)

Radio Shack

Circulation Department
300 One Tandy Center
Fort Worth, TX 76702

Right Start

Right Start Plaza
5334 Sterling Center Dr.
Westlake Village, CA 91362
(800) 548-8531

Sensational Beginnings

PO Box 2009
987 Stewart Rd.
Monroe, MI 48162
(800) 444-2147

Sportime Abilitations

One Sportime Way
Atlanta, GA 30340
(800) 850-8602

**** Switches**

*** Adaptive Materials**

***S&S Worldwide**

P.O. Box 517
Colchester, CT 06415
(800) 243-9232

****Switch Kids, Inc.**

8507 Rupp Farm Drive
West Chester, OH 45069-4526

****Switchworks**

P.O. Box 64764
Baton Rouge, LA 70896
(504) 925-8926

****TASH, Inc.**

Unit 1-91 Station Street
Ajax, Ontario, Canada L1S3H2
(800) 463-5685

****TFH (USA) Ltd.**

4537 Gibsonia Rd.
Gibsonia, PA 15044
(412) 444-6400

***Therapy Skill Builders**

55 Academic Ct.
San Antonio, TX 78204-2498

Toy Manufacturers of America

200 Fifth Avenue Ste 740
New York, NY 10010
(212) 675-1141

Toys to Grow on

PO Box 17
Long Beach, CA 90801
(800) 542-8338

**Toys "R" Us: Guide for
Differently-Abled Kids**

P.O. Box 8501
Nevada, IA 50201-9968

Voicing!

3857 Birch St. 194
Newport Beach, CA 92660
(800) 862-9825

Worldwide Games

P.O. Box 517
Colchester, CT 06415-0517
(800) 243-9232

****Zygo Industries, Inc.**

P.O. Box 1008
Portland, OR 97207
(800) 234-6006

Let's Play! Project

**Center for Assistive Technology
University at Buffalo
515 Kimball Tower
Buffalo, NY 14214**

Phone: (716) 829-3141

Fax: (716) 829-3217

E-Mail: Mistrett@acsu.buffalo.edu

Web: <http://cosmos.ot.buffalo.edu/letsplay/>



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