

# Low-Tech Ideas for High-Level Fun

By Polly Roberts

In school and in therapy, children with special needs spend much of their time learning how to adapt to their surroundings and how to enjoy the same activities their typically-developing peers do. However, translating those same activities into the home isn't always easy for parents. Where do they begin? What kinds of toys can be adapted, and which projects will reap biggest benefits?

Heather Atkins, a speech language pathologist and assistive technology consultant for the Fairfax County Infant and Toddler Connection, said the first step is determining what activity or toy interests a child most. "Do they like music?" she asked. "Do they respond to lights? Do they like Elmo versus Winnie-the-Pooh? [The key is] thinking up ways a child can independently play and motivating them to move."

In June, Atkins launched the Web site [www.AdaptAbleMinds.com](http://www.AdaptAbleMinds.com), which focuses on using low-tech assistive technology strategies to help parents improve the communication, play and life experiences of a child with disabilities. "One of the biggest rewards [of assistive technology] is a child can finally self-play," Atkins said. "Their life changes if they can sit for 20 to 30 minutes like a typical toddler and self-play."

From adapting craft activities and toys to using the Picture Exchange Communication System and computers, several low-tech ways exist for parents to bring assistive technology and other techniques into the home.

## Craft Activities

Kari Glasgow, an occupational therapist at Children's Hospital of Richmond, said most children benefit from participating in craft



Photo courtesy of Camp Chatterbox Assistive Technology Fair, Fairfax County Public Schools.

activities. "They will get mental and physical stimulation by participating in whatever you are doing, no matter the disability."

For children working on perfecting their grasping pattern, Glasgow suggests using broken crayons, golf pencils or broken bits of chalk so children have less room to put other fingers on the object. Children who have trouble grasping smaller objects should work on craft projects on a more grand scale, using large beads and more round-shaped coloring utensils such as egg-shaped chalk or crayons. Try melting small crayons in muffin tins to make easier-to-grip crayons and take apart a foam curler to use as a soft pencil/pen grip. Atkins recommends using a chip clip to keep paper from sliding on a table or binder while a child is coloring.



Look for products that fit easily into the palm of the hand. At home, melt crayons in muffin tins to make easier-to-grip crayons.

Glasgow said parents can usually incorporate what a child wants to make into the activities a therapist recommends. She finds many of her

craft projects online and recommends parents also search the Internet for ideas.

Having children help out in the kitchen kneading bread or stirring batter is also great therapy, according to Glasgow. Atkins had one family hook up a switch to the blender so a 2-year-old could make his own milkshakes. "If they can participate, they feel like they have power."

## Picture Exchange Communication System (PECS)

PECS is often used with autistic children, late talkers and others who have difficulty communicating verbally, according to Elizabeth Grinsell, a speech language pathologist at Children's Hospital of Richmond. The system involves creating pictures that represent certain objects or expressions and giving them to children, enabling them to communicate and make their own choices. Much of the frustration and misbehavior parents often see in their children stems from their inability to communicate, Grinsell said. "They can't make day-to-day decisions, and a lot of times those decisions are made for them."

Speech therapists can teach families how to use PECS and help them start a system specifically for their child. Mayer-Johnson's Boardmaker (see additional resources) computer program is typically used to create the pictures. Priced at \$300, it's not necessarily low cost, but Grinsell said with thousands of pictures, it makes creating a system much easier. Some waivers or grants may cover the program, and therapists can print out additional pictures during sessions. Parents can create a similar program by cutting

pictures from magazines and/or using actual photos. Children start with one picture and work their way up to enough to create sentences. "Start with food, toys, and expand from there," Grinsell said.

## Toys and Games

When adapting toys for children, Atkins offers three tips: enlarge, stabilize and position. Enlarge small buttons or levers with a foam board, wooden pegs or blocks. To enlarge the grip on puzzle pegs, Atkins uses old thread spools and glues them to the pieces. Make book pages easier to turn by gluing Popsicle sticks to the pages or attaching clothespins. "You don't have to buy an \$80 toy when you can make one for \$8."

Stabilize to eliminate the need for coordinated use of both hands, such as when using the chip clip during coloring as mentioned above. Velcro, clothespins and non-skid drawer or carpet lining are also good items for stabilization.

Position the toy or activity in relation to the individual range of motion of the child. Bring objects closer or limit the area needed to perform activities. For example, color on top of a three-ring binder



*Use hot glue to adhere large, easy-to-grasp knobs to puzzle pieces. You can use old thread spools or purchase wooden spools from a craft store.*

to bring the paper closer to the child. Atkins' Web site (*see below*) offers many tips, including how to adapt battery-operated toys for easier switch use.

## Computer Use

While computers are not low-tech on their own, parents can use low-tech ideas to adapt them for easier use. To allow children to have a broad area to press and click a mouse, make a mouse house using a small, inexpensive photo album and cutting out a space to keep the mouse.

A mouse can also be adapted with a basic switch, or children can use a trackball instead of a mouse so they don't have to move their arm to move the cursor on the computer, Atkins said. A trackball is also larger and fits better into the palm of a hand.

Children can learn computer skills using toddler programs and games, many of which only require the left button of the mouse or the space bar to be used. Atkins suggests parents can also use Microsoft Power Point to create their own programs, including talking story books and nursery rhymes.

## More Ideas

Emily Berry, a physical therapist at the Kluge Children's Rehabilitation & Research Center at the University of Virginia's Children's Hospital, recommends that parents and family help children practice therapy exercises in the pool or at home and find ways to incorporate walking, standing, stretching or whatever is needed into the daily routine.

All therapists agreed that the first step in creating any projects or activities at home is to first listen to the advice of the child's therapist. Glasgow concludes, "Knowing what is being worked on in therapy, asking for homework and getting creative is best." ■

*Polly Roberts is co-editor of Richmond.com, where she covers health and fitness. She has a 4-year-old niece with cerebral palsy.*

## Additional Resources

### AdaptAbleMinds

Low-tech ideas and devices help improve the communication, play, and life experiences of children with disabilities.  
[www.AdaptAbleMinds.com](http://www.AdaptAbleMinds.com)

### IntelliTools, Inc.

Learning solutions for the diverse classroom for grades K-8.  
800-899-6687 • [www.intellitools.com](http://www.intellitools.com)

### DynaVox Technologies

Tools that help individuals challenged by significant speech, language, learning and physical disabilities to communicate.  
888-697-7332 • 703-519-1718 • [www.dynavoxsys.com](http://www.dynavoxsys.com)

### Dining with Dignity

Patented flatware for the grip-impaired.  
757-565-2452 • [www.diningwithdignity.com](http://www.diningwithdignity.com)

### Sammons Preston Rolyan - USA

Products that assist with learning and daily living activities.  
800-323-5547, 800-325-1745TDD • [www.sammonspreston.com](http://www.sammonspreston.com)

### Don Johnston Inc.

Intervention products for literacy instruction.  
800-999-4660 • [www.donjohnston.com](http://www.donjohnston.com)

### Integrations

Products for the classroom, for therapists and for the home.  
800-850-8602 • [www.integrationscatalog.com](http://www.integrationscatalog.com)

### Animated Speech Corporation

Produces software that increases the rate of learning and retaining speech and language skills with focus on deaf and hard-of-hearing children and children with autism and other language challenges.  
800-701-9025 • [www.animatedspeech.com](http://www.animatedspeech.com)

### Crayola Crayons

Online store with ideas and activities for parents and educators.  
866-896-5445 • [www.crayola.com](http://www.crayola.com)

### Mayer-Johnson

Provides easy-to-use communication tools.  
800-588-4548 • [mayer-johnson.com](http://mayer-johnson.com)

### Ableplay

Play products and rating system for toys for children with special needs.  
773-276-5164 • [www.ableplay.org](http://www.ableplay.org)

**Virginia Department of Education's Training/  
Technical Assistance Centers (T/TAC) For Persons  
Serving Children and Youth With Disabilities**  
[www.ttaonline.org](http://www.ttaonline.org)