

Making Your Early Childhood Toys Accessible

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Kids learn through playing. This fact is virtually ingrained in every Early Childhood educator. Through play, children learn about themselves and the world around them. Play enables a child to interact with objects, their environment and strengthens relationships with others within that environment. The special needs child with limited physical skills and motor development is at a disadvantage when given the opportunity to use most existing play materials found in the classroom.

There are hundreds of companies which produce play materials. There is, however, a large void when it comes to the accessibility of these products to early childhood students with physical disabilities. The purpose of this presentation is to demonstrate options available which allow access to play materials for all children.

When looking at adaptations for the special needs child, the adult needs to consider the following:

- What is the child's' strengths and how can I use those strengths to his/her advantage?
- Have I looked at play materials and considered all five senses?
- Does this toy allow for individual play or promote peer interaction?

- Am I looking at using this toy for: -cause and effect activities
- communication
- daily curriculum activities (math, cooking, language)
- socialization (group play activities)<
- leisure skills?

Commercial Toys

There are a number of commercial off-the-shelf toys available which, although not designed with special needs child in mind, can be accessed by children who are physically involved.

Sound and motion activated toys are popular around Halloween and Christmas. The day after both these holidays is a good time to hit your local, Kay-Bee Toys, Toys-R-Us, and Wal-Mart. These types of toys can be accessed by many students with physical involvement and are, for the most part, reasonably priced.



Sound & motion activated Halloween toys
 Fright Site Electronic Singing Skull Plaque
 (\$12.99) Toys-R-Us
 Spooking Hanging Spider
 (\$5.00) Wal-Mart

Toys with easily accessible On/Off
 Child Guidance Touch& Play Panda Bear
 (\$7-13) Kay-Bee Toys
 Child Guidance Musical Panda Bear
 (\$5-8) Kay-Bee Toys
 Child Guidance Travel Size Panda Bear
 (\$5.99) Kay-Bee Toys

Adapting Toys

Most toys can be adapted for use by children with special needs. Some examples might be:

- Gluing knobs to puzzle pieces
- Putting slip-stop under toys to keep them from sliding
- Using large-size playing cards or enlarging text on existing materials
- Bells or a rattler velcroed to a wrist band or shoes if holding them is difficult
- Adapting books for easier access (Velcro in page corners to make them easier to turn).

When adapting battery-operated toys, a little more work is involved to make these materials accessible. A *switch* is required which actually activates the toy and normally comes with an 1/8" or 1/4" jack. The switch normally plugs into a *battery-interrupter*, which slides between the battery end and the battery compartment terminal. This battery-interrupter breaks the normal circuit and completes the electrical circuit when the switch is pressed.

It is possible to create your own switch and battery interrupter with materials around the house and a few parts from your local electronics store.

Most switches can be made from almost anything around the home. They may not be as durable as commercially-made products but, they are inexpensive and you can design a homemade switch for a specific student and need. Below are listed the minimum basic materials to construct a simple switch. In addition to the instructions below, there are several books which address methods for building homemade switches (see the Resource section for names and addresses). Most computer hardware adaptive devices use an 1/8" phone plug. [Linda Burkhart](http://www.lburkhart.com/) has a website with more specific instructions for making your own switches.

<http://www.lburkhart.com/>

Tools:	Essential Supplies:
<ul style="list-style-type: none">• soldering iron	<ul style="list-style-type: none">• rosin core solder
<ul style="list-style-type: none">• wire strippers	<ul style="list-style-type: none">• 24 gauge stranded wire
<ul style="list-style-type: none">• hot glue gun	<ul style="list-style-type: none">• electrical tape
<ul style="list-style-type: none">• needle nose pliers	<ul style="list-style-type: none">• 1/8 inch mono phone plug

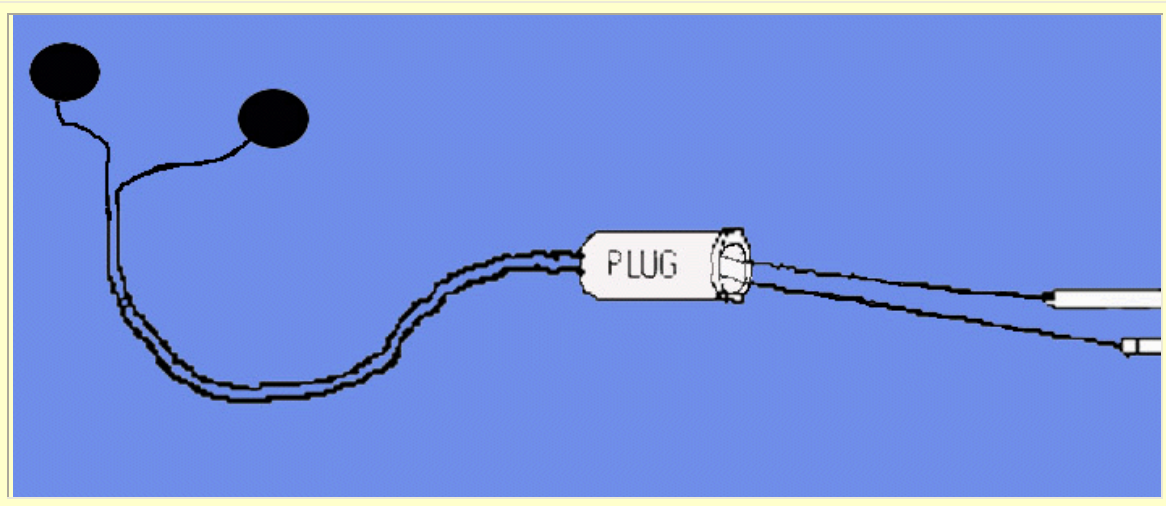
- knife for cutting material

- copper foil

Switches:

- Lever Switch.....Radio Shack # 275-016
- Roller Lever Switch..... Radio Shack # 275-017
- Mercury Switch.....Radio Shack # 275-027
- Push Button Switch.....Radio Shack # 275-1565
- Mini Momentary Push Button Switch.....Radio Shack # 275-1556
- Cassette Foot Switch.....Radio Shack #44-610

The following diagram shows the basic circuit for any type of switch. The main components are: the switch, the phone plug and the wires connecting the two. Just make sure that the two copper pieces are separated until the switch is pressed. Gluing them to a spring-type clothespin works well- when the clothespin is squeezed, the switch activates the device).



[Various Switches](#)
[\\$42.00 Ablnet Inc.](#)



[Battery Interrupter\(Device Adapter\)](#)
[\\$8.00 AbleNet Inc.](#)



Commercially Adapted Toys

There are several companies that have taken commercial toys and adapted them so that they are switch-accessible. A battery-interrupter is not required, simply plug your switch into the built in jack on the toy/device. You can create your own switch-adpated toy by purchasing a 1/8" mono jack, drilling a hole in the toy, installing the jack, and cutting one of the wires that goes to the battery compartment and connecting each of the cut wire ends to the two terminals of the jack.



[Climbing Fireman](#)
[\(\\$39.95\) Crestwood Company](#)



[Switch Adapted Police Car](#)

(\$39.00) Dragonfly Toy



[Pouring Cup on Stand](#)
(\$94.95) Enabling
Devices



[All-Turn-It Spinner](#)

(\$89.00) AbleNet Inc

Adapting Electrical Appliances

Due to the high voltage and potential shock hazard, switches cannot be directly connected to electrical appliances. There are, however, ways to activate televisions, VCR's, hair dryers, and kitchen appliances through a switch or alternate methods. The three ways demonstrated today will be through a PowerLink, Ultra4 (an ECU-Environmental Control Unit), or sound activated devices (the Clapper).

<p><u>Power Link 3</u> (\$179.00) AbleNet Inc.</p>	<p><u>Scanning Ultra 4</u> (\$275.00) TASH International</p>	<p><u>The Smart Clapper</u> (\$21.99) Cornell True Value</p>
 A blue rectangular electronic device with two black power outlets on the front panel and a black power cord attached to the top.	 A black rectangular device with four colored buttons (red, green, blue, yellow) and a circular button with red dots. A "NEW" starburst graphic is present.	 A product box for "The Smart Clapper" with a white envelope-shaped device and a remote control visible through a clear window.

Resources

AbleNet
1081 Tenth Avenue, SE
Minneapolis, MN 55414
612.379.0956; 800.322.0956 (U.S. and Canada)
612.379.9143 (Fax)
CustomerService@ablenetinc.com
<http://www.ablenetinc.com>

Attainment Company Inc.
P.O. Box 930160
Verona, WI 53593-0160

National Lekotek Center
2100 Ridge Avenue
Evanston, IL 60201-2796
847.328.0001
Lekotek Toy Resource Helpline:
800.366.PLAY
lekotek@lekotek.org
<http://www.lekotek.org>

800.942.3865
<http://www.attainmentcompany.com>

Crestwood Company
6625 North Sidney Place
Milwaukee, WI 53209-3259
414.352.5678
crestcomm@aol.com
<http://www.communicationaids.com>

Enabling Devices
385 Warburton Avenue
Hastings-on-Hudson, NY 10706
800.832.8697
<http://www.enablingdevices.com>

Tash International
Unit 1, 91 Station Street
Ajax, Ontario, Canada L1S 3H2
800.463.5685
<http://www.tashint.com>

Toys Are Us
Toy Guide for Differently Abled Kids
PO Box 4422
River Edge, NJ 07661-9894

Additional Internet Resources

[DRM Guide to Disability Resources on the Internet](#)

[A Guide to Adaptive Toys in Kentucky](#)

[Let's Play Project](#)