



Your Therapy Source News

Digital magazine for pediatric
occupational and physical therapists.

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www.YourTherapySource.com

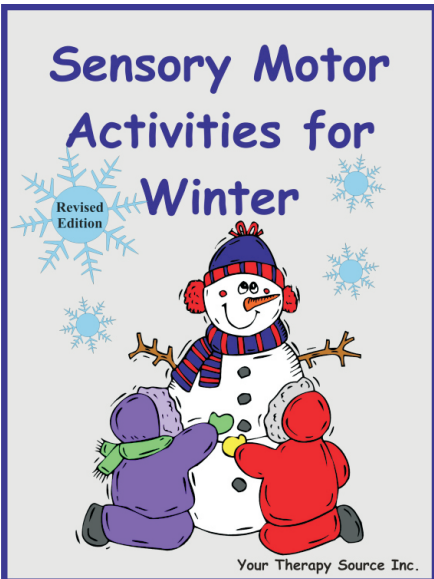
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New and Popular Products



Sensory Motor Activities for Winter

A fun, creative electronic book with over 25 sensory motor activity ideas with a winter theme.

LIST PRICE: \$4.99

www.yourtherapysource.com/winteractivities

CD-ROM Collections

Get a 25% discount when you order the CD-ROM collections

NEW - Seasonal Handwriting CD

Sensory Motor Activities CD

Seasonal Sensory Motor Activities CD

Sensory Processing/Integration CD

Fine Motor Activities CD

Visual CD

www.YourTherapySource.com/CDCollections

www.YourTherapySource.com

Make Your Own Play Time Kits

Just like the craft stores sell all of those kits to create anything that you can think of, how about create some fun play time kits on your own. They would be great to have on hand for teachers or parents to borrow from the therapy room for carry over activities.

Step 1: Buy a plastic container with a lid or decorate a cardboard or shoe box.

Step 2: Decide on a theme. You could do an imaginary play theme, creativity theme, active theme, sensory theme, etc.

Here are some suggestions:

imaginary school - include a wipe off board, paper, red pen, back to school handwriting worksheets, www.YourTherapySource.com/backtoschool , pencil holder.

imaginary hospital - band aids, ace bandages, gauze and flashlight.

imaginary office - tape, stapler, paper, calculator, pens, pretend phone and name tags

arts and crafts - unusual crayon colors, scented markers, rainbow pencils and paper.

sensory - dollar store fidgets, different types of fabric swatches, smock and kids shaving cream

active - beach balls, Velcro catch, pedometer and mini movement breaks notepad, www.YourTherapySource.com/minimove

fine motor - Lego's, fine motor breaks notepad, www.YourTherapySource.com/finemotorbreaks , beads, lace and small clips.

Step 3: Gather all your supplies and put them in the box!

This is a great idea just to keep around your own house for some rainy day fun.

Visual Supports During Therapy Sessions

It is well known that children with autism and certain other disabilities benefit greatly from the use of visual supports throughout the day. Visual supports can be pictures, objects, written words, body language and cues. Some children use visual supports as a primary means of communication in the classroom and home. If this is a child's sole means of communication, visual supports should be used at all times which would include occupational and physical therapy sessions, physical education class, art, music, library and more.

Here are several ways to incorporate visual supports during a therapy session.

1. When explaining directions to certain children, you may need to provide a visual strategy instead of just verbally expressing directions. Many times picture symbols are used for the child to select a choice or to respond but are you providing picture symbols for "receptive" language as well?

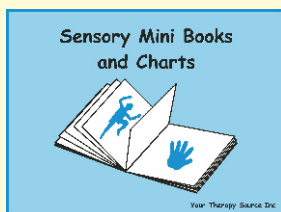
2. Provide responses appropriate for therapy sessions beyond choice selection. Remember children are frequently performing motor tasks and physical activities during a therapy session. You may need to create picture communication boards that allow the child to express statements such as:

| | | | |
|------------------|--------------------|--------------|----------------------|
| I need a rest. | I need some water. | I have pain. | I need to slow down. |
| I can go faster. | I need to sit. | I am ready. | I need to stop. |

3. Create picture symbols that relate to a therapy session. You can use a commercially produced product or take photos of objects that you use during a therapy session. Once you create picture symbol cards of these items, you can use them to allow the children to make choices regarding activities.

4. Create a schedule for during the therapy session. Set up a schedule board with parts of therapy session on it such as warm-up, main activity and clean up. That way the child will know what to expect each time.

5. If you need a child to complete many tasks, try creating visual supports for all the steps in the task. Break the whole project down into simple steps with visuals.



Sensory Mini Books and Charts - offers over 100 picture word cards related to touch, movements, attention, calming down, eating, smelling and listening. You can create schedule strips and establish sensory likes/ dislikes.
www.YourTherapySource.com/minisensory

Sensory Processing

Sense of Touch and Finger Size

The *Journal of Neuroscience* published research indicating that if you have smaller fingers you have better tactile acuity. They found that in general, women had a better sense of touch due to smaller hand size. The authors conclude that smaller fingers have more closely spaced receptors (Merkel cells - associated with light touch). The researchers now want to study how these receptors change with growth of the hands in children.



Additional recent research in a mouse model, showed that a mouse without Merkel cells had a complete loss of light touch receptors but not noxious receptors.

Now, here are some things to think about regarding children with tactile hyper or hypo sensitivity:

Is it related to the amount of receptors in the skin - less receptors mean less ability to process light touch?

Is it related to hand size?

Do you observe that more males than females have tactile issues?

Do tactile sensitivities change with age?

References: Society for Neuroscience (2009, December 15). Women tend to have better sense of touch due to smaller finger size. ScienceDaily. Retrieved December 16, 2009, from <http://www.sciencedaily.com/releases/2009/12/091215173017.htm>

American Society for Cell Biology (2009, December 12). Merkel cells revealed as secret behind sensation of light touch. ScienceDaily. Retrieved December 16, 2009, from <http://www.sciencedaily.com/releases/2009/12/091208132231.htm>

Traumatic Brain Injuries and Sensory Processing

The American Journal of Occupational Therapy published research on the sensory processing of children (3-10 years old) who experienced a moderate to severe traumatic brain injury (TBI). Sensory Profiles were completed on a random sample of 20 children with TBI. The results showed "behaviors outside the typical range in all sections of the Sensory Profile except oral sensory processing". The researchers conclude that children who sustain a TBI should undergo a sensory processing evaluation.

Reference: Jane Galvin-MOT, Elspeth H. BAppSc-BAppSc (OT), Christine Imms-PhD Sensory Processing Abilities of Children Who Have Sustained Traumatic Brain Injuries AJOT November/December 2009 Volume 63 / Number 6

Hot Topics

Aerobic Exercise and Higher Intelligence

Researchers followed 1.2 million (yes, million!) Swedish men born between 1950 and 1976 when they were 18 years old. The results indicated that aerobic fitness was associated with higher intelligence and muscle strength was not. In addition, genetics accounted for less than 15 % and the environment for more than 80% indicating that no matter what your background, aerobic exercise can effect intelligence.

Someone remind me why children sit all day long in school...

Reference: Gardner, A. Exercise May Lead to a More Smarter, More Successful You. Retrieved from the web on 12/2/09 from Health Day at http://www.healthday.com/Article.asp?AID=633553&hq_e=el&hq_m=2160913&hq_l=66&hq_v=622792c640

Social and Community Participation in Youth with Cerebral Palsy

Physical Therapy has published research on the social and community participation levels of children and youth with cerebral palsy. Children and youth in Gross Motor Function Classification Level I (GMFCS) participated in more activities with friends and others compared to children with GMFCS II, III, IV and V. Another difference that was noted indicated that children and youth in GMFCS Level I, IV and V participated in more activities outside the home than in GMFCS Level II and III. There was no difference seen between males and females.

In other words, children/youth who walk without limitations or use a wheelchair participated more in activities outside the home than children/youth who walk with limitations or use hand held mobility devices. Interesting...

Reference: Palisano, Robert J., Kang, Lin-Ju, Chiarello, Lisa A., Orlin, Margo, Oeffinger, Donna, Maggs, Jill Social and Community Participation of Children and Youth With Cerebral Palsy Is Associated With Age and Gross Motor Function Classification PHYS THER 2009 89: 1304-1314

Motor Development Scores for Very Preterm and Very Low-Birth Weight

The Journal of the American Medical Association reported on infants who were born <32 weeks gestation and weighing less than 1500 grams and motor development. A review of the literature indicated that the children scored significantly lower on the Bayley Scales, the Movement Assessment Battery for Children and the Bruininks-Oseretsky Test of Motor Proficiency from birth through adolescence. On the Bayley scales, there was a "catch up effect in the first years of development". The Movement Assessment Battery showed a non significant greater deficit with increasing age from elementary school though early adolescence.

Reference: Jorrit F. de Kieviet; Jan P. Piek; Cornelieke S. Aarnoudse-Moens; Jaap Oosterlaan Motor Development in Very Preterm and Very Low-Birth-Weight Children From Birth to Adolescence: A Meta-analysis JAMA. 2009;302(20):2235-2242.

More Hot Topics

Autism, ADHD and Motor Skills

The Journal of Autism and Developmental Disorders published research comparing the movement abilities of 91 children ages 6-10 with autism (28), ADHD (29) or typical development (34). The results indicated that children with autism or ADHD scored significantly lower than the control group on overall gross motor development, locomotor skills and object control skills. The autistic group scored lower than the ADHD group. Overall, 16% of the autistic and ADHD children had clinical levels of impairment.

Reference: Chien-Yu Pan, Chia-Liang Tsai and Chia-Hua Chu Fundamental Movement Skills in Children Diagnosed with Autism Spectrum Disorders and Attention Deficit Hyperactivity Disorder Journal of Autism and Developmental Disorders Volume 39, Number 12 / December, 2009/ Pages 1694-1705. DOI 10.1007/s10803-009-0813-5

Clubfoot and Motor Skills

BMC Pediatrics published research on idiopathic clubfoot and motor skill ability. Twenty children (mean age 7.5 years) were evaluated with the Movement Assessment Battery for Children (MABC) and the Clubfoot Assessment Protocol (CAP). A correlation existed between single leg stance on the CAP and MABC scores. Children with idiopathic clubfoot demonstrated higher prevalence of motor impairment on the MABC and the subtest of ball skills. Children with unilateral and bilateral clubfoot had the same amount of motor problems. There was no relation found between MABC and the clinical outcome or surgery of the clubfoot. The authors conclude that there may be other factors besides musculoskeletal influencing motor skills in children with idiopathic clubfoot.

Reference: Hanneke Andriessse , Lena Westbom and Gunnar Hagglund. Motor ability in children treated for idiopathic clubfoot. A controlled pilot study. BMC Pediatrics 2009, 9:78doi:10.1186/1471-2431-9-78

Thalamus as Conductor

Two recent studies indicate that the thalamus is "heavily involved in sensory processing". The researchers found that not only does the thalamus play a role in sending auditory, visual and touch information to the cortex but it is also important in the actual sensory processing of this information. Using a special imaging technique, a pathway from the cortex, to the thalamus and back was observed. One of the researchers, Sherman, reports:

"Keeping the thalamus "in the loop" may help the brain coordinate sensory information with motor systems to direct attention or coordinate multiple cortical areas to accomplish different tasks."

The other study looked at auditory information and found that the thalamus acts differently depending upon the initial auditory information.

Both studies found that the thalamus must be considered when studying sensory processing. It is not longer viewed as a "pit stop" but as a "conductor" of information.

Reference: University of Chicago Medical Center The thalamus, middleman of the brain, becomes a sensory conductor. Retrieved from the web on 12/9/09 from <http://www.uchospitals.edu/news/2009/20091207-thalamus.html>

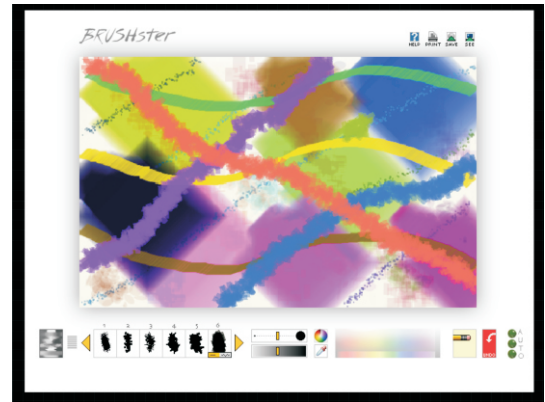
Assistive Technology

Modifications in Art Class with Assistive Technology

The Art Zone, www.nga.gov/kids/zone/zone.htm, is a website that offers free online tools to create amazing artwork. It is maintained by the National Gallery of Art in Washington. This is fun for all ages. If you work with any children who use a computer instead of pen and paper, this would be a great modification to use in art class.

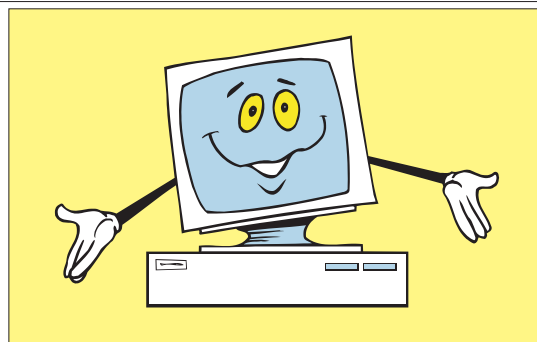
My favorite is the Brushter, which is an online painting machine. You can print and save your works of art. Here is a screenshot of something I created on Brushter. Need some interesting visual stimulation? Check out the Flow program. This creates amazing, mesmerizing images with a click.

Creative or not, one could spend hours on this website producing amazing works of art. There is just too much to list. Check it out yourself.



Free Web Tools for Therapists

Advance for PT has published my article entitled Free Web Tools for Therapists. Check it out at www.physical-therapy.advanceweb.com/editorial/content/editorial.aspx?cc=212409



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Occupational Therapy Group Lesson Plan

Artist Trading Cards

Background information on Artist Trading Cards

Artist trading cards are unique miniature works of art. In a nutshell they are homemade trading cards. There is only one rule to follow. The trading cards must be 2.5" by 3.5" in size. On the back, write the name of artist, title and number it. Once your cards are made, start trading them with friends and family. You can even search online for people to exchange cards. Anyone can be an artist with these simple cards.

Materials needed:

- cardstock paper cut to 2.5 inches by 3.5 inches
- any artist materials such as crayons, markers, watercolors, stickers, scrapbook paper, etc.
- scissors and glue

Objectives:

- Encourage fine motor skills
- Promote social skills
- Foster creativity



Activity:

- On the trading card, draw, create a collage, paint, stamp, glue, color or whatever you like.
- Turn the card over when dry and write the artist's name, title of the card and number the card.
- Create several cards.
- Start trading. Swap cards with the other children in the group.

Try having several OT groups create trading cards on one day. Plan a large gathering for all groups to trade cards with each other on a different day if time is short.

Modifications: If the trading card is too small for some children, create one piece of artwork on a piece of cardstock and cut into trading card size.

Optional: place in trading card sleeves (available at hobby shops for about \$0.25 a sheet to hold 9-18 cards) or put in wallet sized photo album.



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