



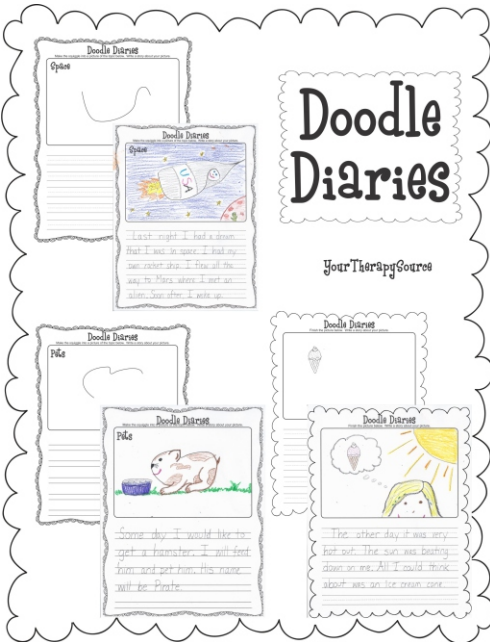
Your Therapy Source News

**Digital magazine for pediatric
occupational and physical therapists.**

Issue 44 - November 2012

www.YourTherapySource.com

New and Popular Products



Doodle Diaries

Combine doodling with writing in this download that includes 15 squiggle and 25 doodles to add to and write a story about your drawing.

Retail Price: \$3.99

Sale Price until 11/18/12: \$1.99

www.YourTherapySource.com/doodlediaries



Sensory Motor Group Activities A to Z

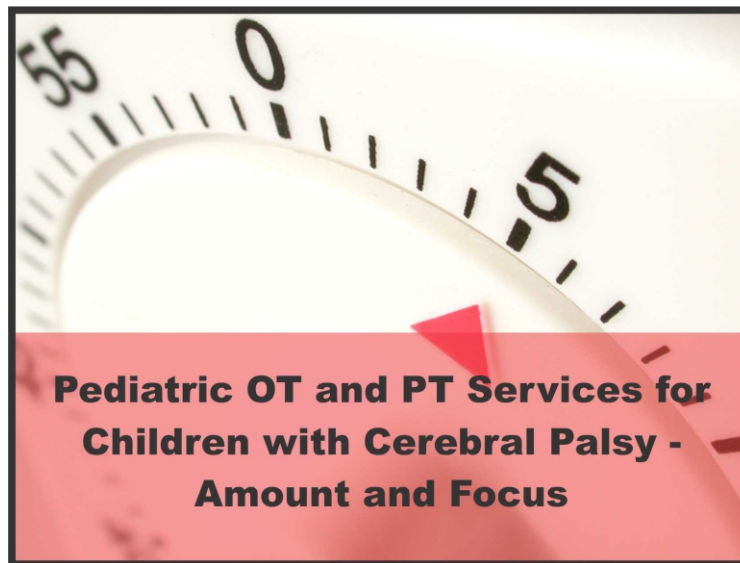
Download of an electronic book of over 50 sensory motor group activities for every letter of the alphabet plus over 20 printable sheets to compliment the activities

Retail Price: \$9.95

Sale Price until 11/18/12: \$4.99

www.YourTherapySource.com/atoz

Amount and Focus of OT and PT



Research will be published on the focus and amount of pediatric occupational and physical therapy services for 399 children, ages 2-6 years old, with cerebral palsy. Parents completed a questionnaire over the telephone with therapists reporting the child's Gross Motor Function Classification System (GMFCS) level. The results indicated the following regarding the amount of services:

- children who received educational and clinical services had greater mean minutes per month for OT and PT services
- mean minutes per month of OT and PT were greater for children GMFCS Levels IV and V than Level I
- mean minutes per month of OT and PT were higher in the US than Canada

Parents reported that pediatric therapy services focused on the following:

- moderate to great extent on primary impairments, secondary impairments, activity, and structured play activities
- moderate extent on environmental modifications and equipment
- moderate to small extent on self-care routines

Reference: Palisano RJ, Begnoche DM, Chiarello LA, Bartlett DJ, McCoy SW, Chang HJ. Amount and Focus of Physical Therapy and Occupational Therapy for Young Children with Cerebral Palsy. *Phys Occup Ther Pediatr*. 2012 Sep 7. [Epub ahead of print]

Recent Handwriting Research



The [Edie Neurolearning Blog](http://eideneurolearningblog.blogspot.com/2012/09/fmri-of-dysgraphia-lack-of-automaticity.html) posted information on some research on the brain basis of dysgraphia. It appears to be very interesting although there is not a reference. It confirms what many pediatric therapists observe - many children require extensive visual monitoring of letter formation. Functional MRI's compared "good writers" with "bad writers". The testing revealed that "bad writers" had much more active visual areas of the cortex than the primary motor-sensory areas around the central gyrus. In addition, cerebellar activation was stronger in midline structures ie trunk more than the fingers.

Reference: Edie Neurolearning Blog. Retrieved on 10/10/12 from <http://eideneurolearningblog.blogspot.com/2012/09/fmri-of-dysgraphia-lack-of-automaticity.html>

A recent study in the *Journal of Occupational Therapy, Schools, & Early Intervention* assessed two groups of first grade students with the Minnesota Handwriting Assessment. The first group printed on a four-lined writing grid that included top, middle, base, and descender guidelines. The second group printed on double lined paper that provided middle and base guidelines only.



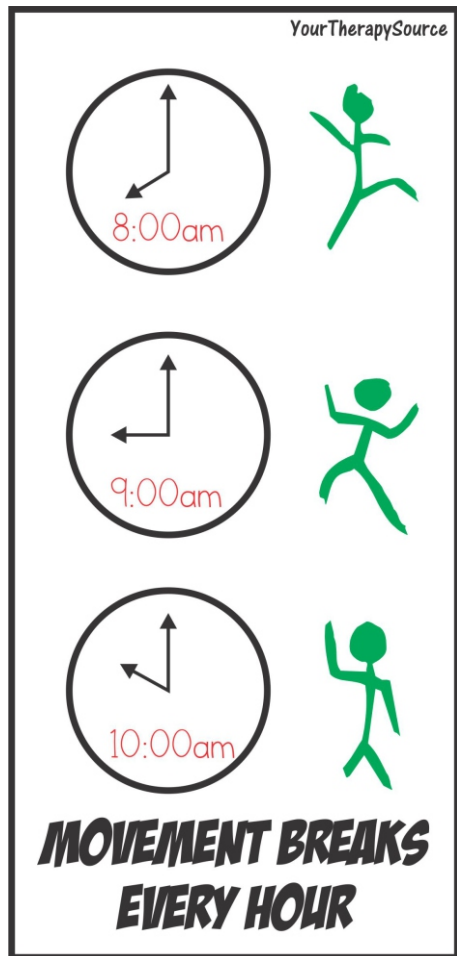
The results indicated the following:

- no difference between groups for legibility, form, alignment, and space as measured by the Minnesota Handwriting Assessment.
- a statistical difference noted between the two groups for size
- sizing errors showed that 55% of the students in the double-lined paper group used the middle guideline as a top guideline

The researchers recommend using paper with a top and bottom guideline for first graders to encourage proper letter sizing.

Reference: Whitney Reidlinger MAOTR/L, Catherine Candler PhDOTRBCP & Marsha Neville PhDOT. Comparison of Differently Lined Paper on Letter Production Quality in First Graders. *Journal of Occupational Therapy, Schools, & Early Intervention* Volume 5, Issue 2, 2012 pgs 155-164 DOI:10.1080/19411243.2012.701544

Simple Tip for Movement Breaks



While many of us know that increased physical activity levels are associated with higher academic scores, it can be hard to implement more exercise time during the school day.

Here is a simple tip - suggest to the teachers to squeeze in a **super quick movement break every hour on the hour** no matter what they are doing.

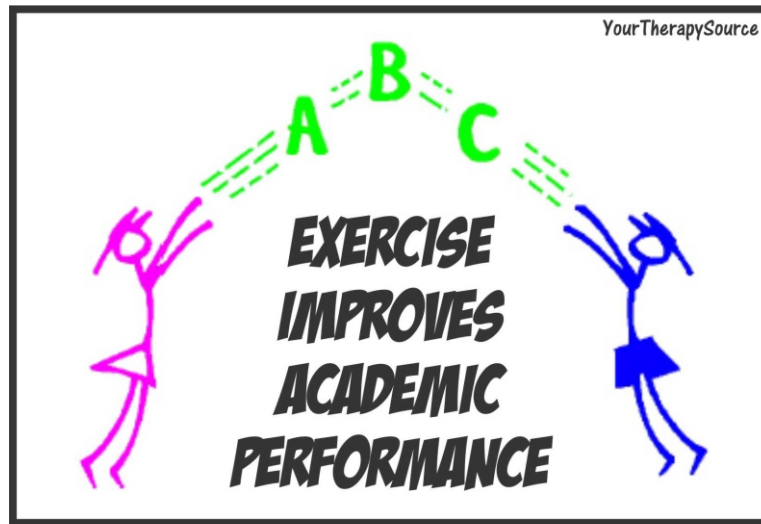
Just take two minutes to drop the pencils, stand up and move around. It can be as simple as doing the same activity every hour ie. stretch and marching in place or as varied as changing the activity every hour or every day. You could even provide suggestions to perform the movement breaks sitting down. With kids in school for about 6 hours that would total up to an additional 12 minutes towards the 60 minutes of physical activity per day that is recommended. Not to mention shake those wiggles out and get kids ready to work. I know this can not work in every class room but for some it might be another idea to add into the school day.

Need ideas? Check out [10 Simple Activities to Encourage Physical Activity](#), [Mini Movement Breaks](#) (print this out to give to teachers to change the activities up - super easy and the breaks require no equipment), go on a quick [Imagination Action Journey](#), or perform activities from [Roll Some Fun](#) (print and throw the dice to determine what activities to perform). You can find these titles here <http://yourtherapysource.com/sensorymotordownloads.html>

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Exercise Improves Academic Performance



A new study published in the *Journal of Pediatrics* recognizes the benefits of exercise to improve academic abilities in children with ADHD. In this study, 40 children total (20 with ADHD 20 without ADHD), ages 8 -10 years old spent 20 minutes walking briskly on a treadmill or 20 minutes reading. This was followed by a reading comprehension test, math exam and a computer game (goal of computer game was to ignore visual stimuli). The results indicated that all of the children scored better following the bout of exercise. In addition, following exercise the children with ADHD did a better job at slowing down after making an error to avoid repeat mistakes. The researchers concluded that children need more physical activity throughout the day.

This is an excellent tip to offer to teachers before the next state exams, especially with all the new APPR requirements and test score results - take a brisk walk for 20 minutes right before the exams. Free, healthy and super simple to carry out.

Need ideas to squeeze physical activity in throughout the school day? Check out the following - [Classroom Activity Posters](#), [Mini Movement Breaks](#), [Roll Some Fun](#), [Dancing with the Owls](#) and [Educational Sensory Motor Activities](#). You can find these titles here <http://yourtherapysource.com/sensorymotordownloads.html>

Reference: Michigan State University. Exercise may lead to better school performance for kids with ADHD. Retrieved from the web on 10/17/12 at <http://news.msu.edu/story/exercise-may-help-learning-for-kids-with-adhd/>

Immersion in a Motor Skill



Here is something to try that does not have to necessarily do with swimming - immersion in one particular motor skill. When we are teaching a child a new motor skill or perhaps working on refining a motor skill, try bombarding the child with the skill. Here are some examples:

- The goal is to write a circle. Overload the child with circles during the therapy session. For example, cardboard tube slices, tub tops, jar lids, paper plate stencils, hot glue rubbings, salt tray, etc all to practice manipulating and writing circles.
- The goal is to jump forward 6 inches with two feet together. Overload jumping skills with watching videos of children jumping, model the proper jump, play a game with frogs who jump, jump on a trampoline and more.
- The goal is to perform a sit to stand transfer with verbal cues. Practice sit to stand transfers in many different chairs, video tape the sit to stand transfer and watch it, practice manipulating action figures or Barbie type dolls moving from sitting to standing, etc.

Take the time to discuss with the child the importance of the skill. By providing all the opportunities and examples of the skill will hopefully teach the child how important the skill is and to help provide the child with internal motivation to achieve the goal.

What do you do to "overload" a child to learn or refine a motor skill?

AFOs and Postural Control



Postural Control and Ankle Foot Orthotics in Children With and Without Cerebral Palsy

Recent research studied the effects of ankle foot orthotics on trunk postural control and lower limb coordination in 20 children (ages 4-12) with and without cerebral palsy. The results of tridimensional trunk kinematics and thigh, shank, and foot elevation angles while walking barefoot and with ankle foot orthotics indicated the following:

- significantly greater trunk excursions in children with cerebral palsy compared to typically developing children in both conditions
- when wearing ankle foot orthotics, increased trunk frontal angular velocity was seen in children with cerebral palsy whereas typically developing children showed increased trunk frontal displacement
- no significant changes in trunk displacement and angular velocity were recorded in the sagittal plane in either group
- significant changes in shank and foot elevation was seen in both groups when wearing the ankle foot orthotics

Reference: Degelean M, De Borre L, Salvia P, Pelc K, Kerckhofs E, De Meirleir L, Cheron G, Dan B. Effect of ankle-foot orthoses on trunk sway and lower limb intersegmental coordination in children with bilateral cerebral palsy. J Pediatr Rehabil Med. 2012 Jan 1;5(3):171-9.

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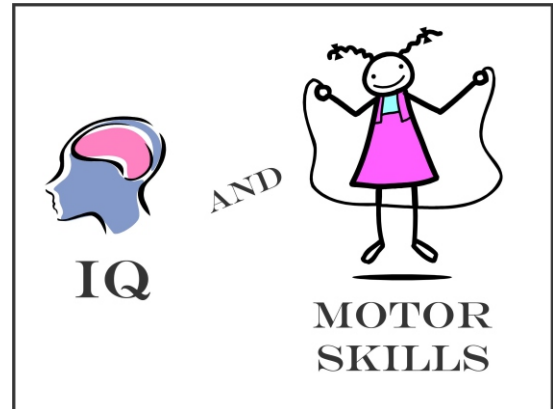
Hot Topics

Pediatrics published research on the relationship of IQ to motor skills. Data on motor skills and IQ was assessed on 460 children in educational and clinic settings. The results of the data analysis indicated that typical and atypical motor skills were seen at all levels of IQ. In addition the following was seen:

"for each SD lower IQ, a mean loss of 10 percentile motor points should be expected".

Overall, children in the study with a lower IQ showed poorer motor performance more often than children with a higher IQ.

Reference: Bouwien Smits-Engelsman and Elisabeth L. Hill. The Relationship Between Motor Coordination and Intelligence Across the IQ Range. *Pediatrics* 2012; 130:4 e950-e956; published ahead of print September 17, 2012, doi:10.1542/peds.2011-3712



Recent research completed video analysis on 120 typically developing fourth grade students performing a handwriting task. The pencil grasps were categorized into six groups (four mature, one immature and one alternating grasp). Speed and legibility of handwriting was evaluated. The results indicated that there was no significant effect for mature pencil grasps on speed or legibility.

Reference: Heidi Schwellnus, Heather Carnahan, Azadeh Kushki, Helene Polatajko, Cheryl Missiuna and Tom Chau. Effect of Pencil Grasp on the Speed and Legibility of Handwriting in Children. *American Journal of Occupational Therapy* November/December 2012 vol. 66 no. 6 718-726. doi: 10.5014/ajot.2012.004515

On The Web...

[Bean Bag Tunes on You Tube](#)

Came across these fun YouTube videos to use as a quick brain break for teachers in class or some activities during a therapy session. It reinforces learning right side from the left side, bilateral coordination, body awareness and following directions. You can view them here -

<http://yourtherapysource.blogspot.com/2012/10/bean-bag-tunes-on-you-tube.html>

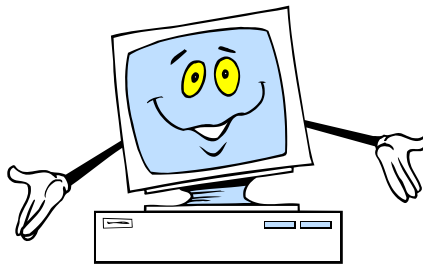
[Pincer Grasp on the iPad -](#)

<http://www.yourtherapysource.blogspot.com/2012/10/pincer-grasp-on-ipad.html>

Here is the tip of the day when using an iPad - use a mini sponge. A regular cellulose sponge cut up into a small piece will encourage the child to use a pincer grasp when using the iPad. In the pictures above, you can see the pincer grasp on the mini sponge. Now you can "write" directly on the iPad using the sponge instead of just the fingertips. This is wonderful for visual motor activities (ie [Visual Motor Workbook](#) in pdf format opened in an app that allows you to mark up pdf documents). It works on regular apps as well. Tested it out on Letter School and it worked perfectly. Hopefully, encouraging the pincer grasp with the mini sponge when forming letters or visual motor tasks on the iPad will result in better carry over to actual handwriting compared to just using pad of the index finger. Thanks [OT with Apps for the idea!](#)

[More Hula Hoop Ideas](#)

There is a previous blog post here on [hula hoop ideas](#) (<http://yourtherapysource.blogspot.com/2012/08/3-simple-group-games-with-hula-hoop.html>) that was extremely popular entitled 3 Simple Group Games with a Hula Hoop. I just came across a great video from **Barbara Smith, The Recycling OT**, with some more fun ideas to use a hula hoop. I especially liked her ideas to put the rings on the hoop. You can watch the video here <http://yourtherapysource.blogspot.com/2012/10/more-hula-hoop-ideas.html>



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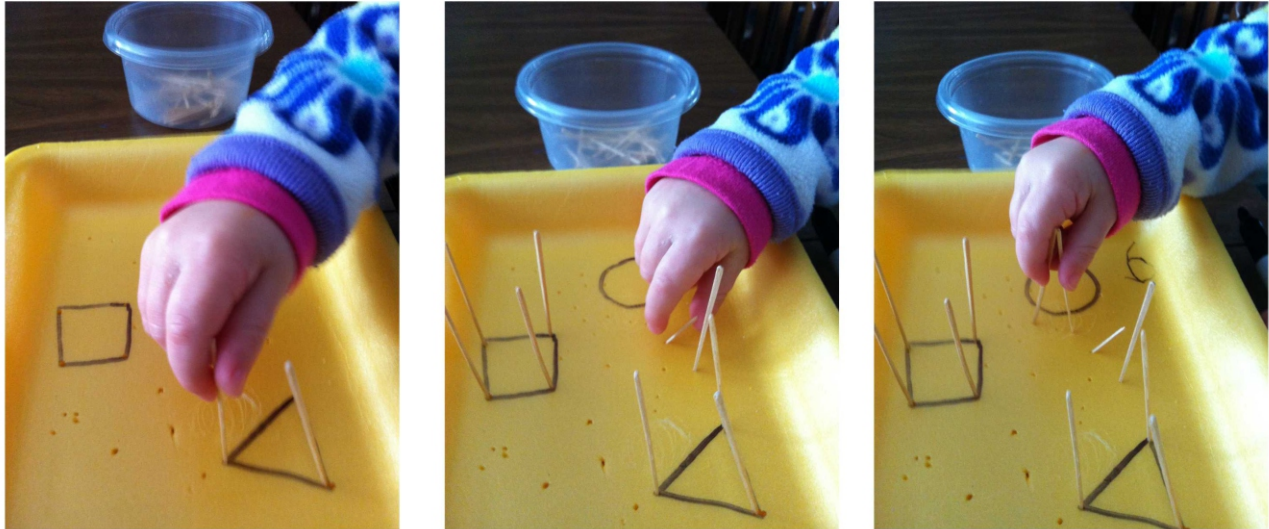
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Activity Ideas

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TOOTHPICKS IN STYROFOAM

Here is a super simple and super economical activity to encourage the pincer grasp. Recycle and clean a Styrofoam tray. Draw some simple shapes, letters, numbers or just let the child make a free form sculpture. Put the toothpicks next to the tray in a container. Poke the toothpicks into the tray around the shapes as pictured or anywhere.

Try using other objects to poke the tray like a dull pencil or the back of a paint brush.

This would make a nice sensory break as well that incorporates fine motor skills, proprioception and visual perceptual skills.

Want to add another element to your sculpture? Put colored straws next to the tray. The child can place the colored straws over the toothpicks to make the sculpture taller and colorful. Be careful not to knock over the toothpicks as you put the straws on - takes a lot of graded muscle control.

Activity Ideas



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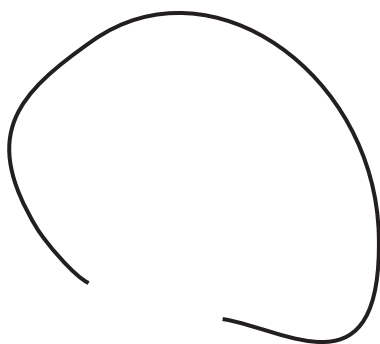
DUCT TAPE FLAG ACTIVITIES

Practice balance skills, coordination, jumping skills, motor planning and motor memory all with some duct tape and rope! Watch the video for all the details at <http://yourtherapysource.com/videoducttape.html>

Doodle Diaries

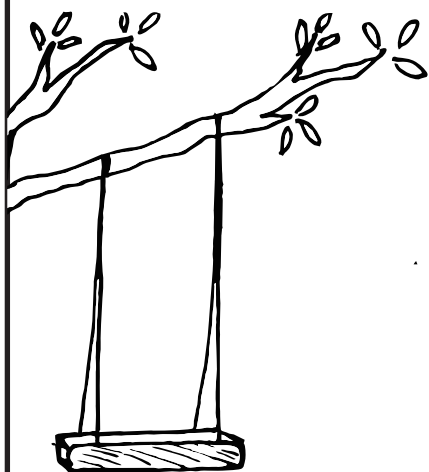
Make the squiggle into a picture of the topic below. Write a story about your picture.

vacation



Doodle Diaries

Finish the picture below. Write a story about your picture.



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