

Your Therapy Source News

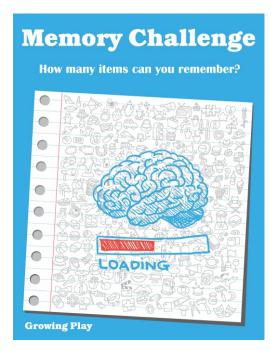
Digital magazine for pediatric occupational and physical therapists.

www.YourTherapySource.com



May 2016 Issue 83

New and Sale Products



Memeory Challenge

By: Your Therapy Source Inc/ Growing Play

Summary: Challenge your visual memory. Three levels of difficulty.

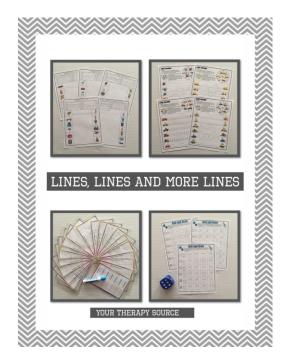
Price: \$3.99

Sale Price: \$1.99 until 5/15/16

Download a free memory challenge page - Welcome

to the Zoo.

FIND OUT MORE AT http://www.yourtherapysource.com/memorychallenge.html



Lines, Lines and More Lines

By: Your Therapy Source Inc

Summary: Download of 24 task cards (12 full pages) to trace lines of varying difficulty, 5 letter matching lines, 4 line racing games and 3 roll and draw games.

Price: \$3.99

Sale Price: \$1.99 until 5/31/16

FIND OUT MORE AT http://www.yourtherapysource.com/lines.html

Endurance Activities for School or Home

Some students may have difficulties keeping up with their peers in physical education class, recess or walking in a classroom line. Finding feasible endurance activities can be difficult in the school setting. One school I worked at actually had a gorgeous work out room with treadmills, exercise bicycles, ellipticals and full nautilus equipment. The reality is most schools (and homes) have no formal aerobic fitness equipment.

Here are 5 activity ideas to improve a child's aerobic fitness and endurance at school or home:

1. Climb the stairs. This is not only a great endurance and stamina booster but adds in lower extremity muscle strengthening too! Each week you can increase the amount. Start out with one flight up and down. Add a flight each week. If stairs are not available, use a stool to step up and down for a set amount of time.

Endurance Activities for School or Home



- 2. Head outdoors! Climb hills, jog, speed walk or do step ups on the curb.
- 3. Jump rope. This is a great workout but can be tough to coordinate for some students. If a student can not jump rope independently, try swinging a rope slowly back and forth on the floor and have him/her jump over the rope for a set amount of time.
- 4. Circuit Training. Have different stations to move through such as jogging in place, jumping jacks, high knee marching in place, jumping on a mini tramp and mountain climbers. Every 30 seconds to 60 seconds move to a new station. Perform for a set amount of time. Try Get Moving Flashcards (http://www.yourtherapysource.com/getmovingflashcards.html) to incorporate academic material with aerobic fitness.
- 5. You Tube, exercise apps or Go Noodle videos. You can find endless ideas for endurance activities that will increase a child's stamina if you have access to the Internet. Sworkit is a great free app that keeps you moving and strengthening. Tabata workout is nice for kids who struggle to participate because it is short burst of activity.

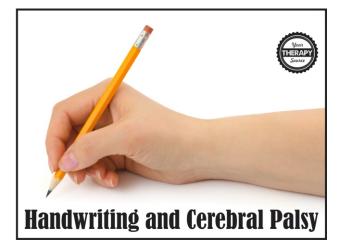
What is your favorite endurance activity for kids?

25 Bilateral Coordination Exercises: Download of 28 bilateral coordination exercise sheets including QR codes with links to video demonstration of exercises. Also includes hand out explaining bilateral coordination.

FIND OUT MORE INFORMATION http://www.yourtherapysource.com/bilateralcoordination.html



Functional Tasks, Postural Control and CP



The Journal of Physical Science published research on 96 elementary school children with cerebral palsy to identify factors influencing handwriting articulation based on the international classification of functioning, disability and health (ICF) and to recommend effective evaluation and intervention strategies. The participants were: 54 males, 42 females, average age of 11.16 years old, 54 with diplegia, 30 with hemiplegia and 12 with quadriplegia.

Through interviews, proprioception test, manual muscle testing, dynamometer, Bruininks-Oseretsky Test of Motor Proficiency (subtest 3 and 8), sitting balance test, pencil grasp survey and Korean alphabet writing assessment factors related to handwriting were classified. The factors were classified as personal factors (gender, age, education, hand dominance, type of cerebral palsy), environmental factors (writing aids, sitting aids, type of desk), body structure(affected side), body functions (cognitive function: orientation, visual perception, spatial perception, motor praxis, visual motor organization, thinking operation; sensory function: proprioception, tactile; strength function: upper extremity, grasp, prehension; motor function: bilateral coordination, upper extremity speed), and activity and participation (sitting balance, pencil grasp posture).

The results indicated that the following factors were related to handwriting articulation:

- personal factors (age, education)
- body functions (cognitive function: visual perception, visuomotor organization
- strength function: upper extremity elbow flexion and extension, wrist extension, lateral deviation and medial deviation, grasp
- motor function: bilateral coordination, upper-extremity speed.

Statistically, wrist lateral deviation, upper-extremity speed and education were significantly associated with handwriting articulation.

Handwriting Stations: Includes the materials to create a handwriting station on a tri-fold or in a folder. The station includes proper letter formation for capital and lower case letters, correct posture, pencil grip, warm up exercises, letter reversals tips and self check sheet. In addition, there are 27 worksheets for the alphabet and number practice (Handwriting without Tears® style and Zaner-Bloser® style). This download is great for classroom use, therapy sessions or to send home with a student.

FIND OUT MORE at http://www.yourtherapysource.com/hwstation.html

Reference: Hee Young Kim, PhD, OT. An investigation of the factors affecting handwriting articulation of school aged children with cerebral palsy based on the international classification of functioning, disability and health. J Phys Ther Sci. 2016 Jan; 28(2): 347–350. Published online 2016 Feb 29. doi: 10.1589/jpts.28.347.

Host a School Based Therapy Showcase

Have you ever considered hosting an occupational and physical therapy showcase at the school where you work? You could invite parents, teachers and students to come check out all the assistive technology and adapted equipment that is available for students. When therapists hop in and out of classrooms and homes they only see a slice of that child's life. Parents and teachers are with the children many more hours in the day therefore offering the most insight. When you stop to think about it, parents and teachers may not know what is even available especially along a continuum. For example, perhaps a student is using some simple adaptive equipment like a slant board. There are many different slant boards available along with many homemade versions. Perhaps if a



Therapy Showcase

parent or teacher spots a certain feature of one versus another for a student, that will trigger an idea of what would work best. Same could be said for other equipment including bigger equipment such a wheelchairs or standing frames. Therapists tend to recommend equipment from a medically and educationally based perspective of what the child needs but don't always take into account the perspective of the parent or teacher. If they are not on board than we all know the equipment usually does not get utilized (understandably so).

Here are some suggestions:

- 1. Have a **showcase night** where you exhibit any adaptive equipment or assistive technology and its uses. Separate areas of the room perhaps by handwriting tools, technology tools. adaptive equipment and larger equipment. Make sure information is available for what each tool is used for. This is great for IEP planning for the following school year.
- 2. Take pictures of everything so that you can send the information to parents and teachers who are unable to attend. Even better, **create a binder** of what is available for parents or teachers to "check out" of the therapy department to review at their leisure.
- 3. **Provide a demonstration** of certain tools explain why certain pencil grips are chosen, demonstrate word prediction programs, demonstrate different walkers, etc.
- 4. If you have a loads of equipment to showcase break it up into different nights therefore parents/teachers can come on the nights they are interested in the topic.
- 5. If you do not have time to host an actual showcase, how about create some **poster** presentations to leave by the room. This will inform teachers and parents what is available as they walk by. You could have different themes each month.
- 6. Love the idea of a showcase? **Invite local vendors** to bring wheelchairs, standing frames, orthotics, computer software, etc. Advertise it well and you would get attendees from other communities including therapists.
- 7. Take it one step further and make it a fundraiser. Do you need money for an adapted bicycle, iPad or handwriting program? Set up your showcase and ask for donations at the event.

Occupational and physical therapists have so much information to share that just can not occur during a 30 minute session. Start thinking outside the box to provide educational insight for all members of the special education team.

8 Tips to Encourage Inclusive Sports Participation

Research indicates that persons with disabilities frequently join inclusive sports but do not continue with the inclusive sports overtime. Parents report rejection by staff and other participants. In addition, parents feel that there is a lack of contact and understanding of people with disabilities. Physical activity for persons with disabilities is extremely important. It is disappointing to hear that parents find inclusive sports not appropriate for children with intellectual disabilities. School based occupational and physical therapists can be instrumental in promoting physical activity for individuals with disabilities. Try to schedule a presentation on inclusive sports for your community or school. Here are 8 tips to help any children with disabilities participate in inclusive sports programs:



- 1. First and foremost make sure that the sports program is accessible for the child. If not, offer some modifications that can make the program accessible.
- 2. Educate the coaches and volunteers on the child's disability. If a coach does not know what to do, it can make participation very difficult.
- 3. If any modifications require adapted equipment, make sure all sports staff know how to use it.
- 4. Offer suggestions on how to present the directions or rules in different formats instead of just verbally. Maybe the coach could provide written rules or visual demonstrations.
- 5. Inform sports staff that the child may need accommodations such as more time to complete a skill.
- 6. If a child requests additional help, perhaps assign a partner (peer or adult) to help.
- 7. Do not assume a child can not do a task. If possible and safe, always let them try first before determining that something can not be accomplished. Most likely, sports staff will be amazed at what children can accomplish. If necessary, pre-teach the skills necessary to participate in the sport.
- 8. Remind staff of safety precautions that be necessary for specific disabilities such as a visual or hearing impairment.

Reference: Eva Hiu-Lun Tsai, Lena Fung. Parents' Experiences and Decisions on Inclusive Sport Participation of Their Children With Intellectual Disabilities. APAQ, 26(2), April 2009.

Teaching Catching, Throwing and Kicking Skills – Help children learn how to catch, throw and kick with this packet full of information of age progression of skills, visual picture cards, tips, letter to parents and more!

FIND OUT MORE at http://www.yourtherapysource.com/teachcatchthrowkick.html



5 Interoceptive Sensory Strategies to Induce Sleep



The interoceptive sense perceives the physiological condition of the internal body. It includes pain, temperature, itch, affectionate touch, sensations from our organs and muscles, hunger, thirst, and air hunger. It also includes "gut" feelings such as calmness, comfort, contentment, happiness, safety, security and warmth. The exteroceptive sense perceives external stimulus outside of the body such as position in space, sight, hearing, taste, touch and smell. All these affect our ability to sleep.

Here are 5 interoceptive sensory strategies to induce sleep from the Autism Sleeps™ book by Ileana S. McCaigue OTR/L:

- 1. Diurnal (day/night) patterning is important to regulate circadian (sleep/wake) rhythms for all ages.
- 2. The sleep system used is the most important component or strategy/item to provide the comfort and relaxation needed to make bedtime a pleasurable time to anticipate.
- 3. Facilitate positive self-esteem is critical to the ability of the person to feel secure enough to enable a positive sleep experience.
- 4. Give affection with appropriate touch to further calm and support emotionally.
- 5. Induce a sense of security to help reduce anxiety, particularly for a child, would include dispelling fears of the dark, ghosts, bugs, "monsters", etc.

Autism Sleeps available at www.YourTherapySource.com

Get more sensory strategies to help restless minds sleep in <u>Autism Sleeps™</u>. This is a thorough resource of sleep sensory strategies and suggestions for preparing the "sleep environment". Sample bedtime and wake-up routines are provided as templates, especially to guide parents of children with sleep difficulties. Also includes checklists to identify which of the six sensory area(s) are impacted by poor sleep. A menu of sensory strategies in each of those affected areas is available for use in preparing a person to sleep, stay asleep and transition to wake up. Additionally, a diary and graph are available for logging the impact of the strategies implemented to determine those that are most effective in helping restless minds sleep.

FIND OUT MORE at http://yourtherapysource.com/autismsleeps.html

Reference: McCaigue, I. OTR. Autism Sleeps™. Suwanee, GA. Handy O. T. Treatment Tools, LLC. 2013.

6 Ways to Help Children Grade Their Movements

There are many reasons why a child may have difficulties with grading the amount of force to use when performing motor skills. Some children may crash, bang, push too hard or land too hard when performing actions such as playing tag, running in a gym or jumping. Other children may not push or pull hard enough. As therapists, we tend to focus on various sensory suggestions or muscle grading activities to help children with force attenuation. Here are 6 suggestions to help children grade their force production:

1. Proprioceptive activities – allow for free play activition that include heavy lifting, pushing, pulling and jumping to encourage the muscles to feel all the different forces



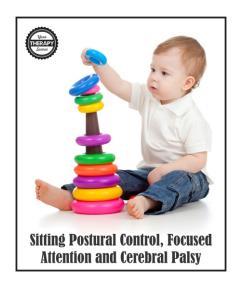
Ways to Help Children Grade Their Movements

and responses required in various situations. When you perform a motor skill the joints and muscles send messages to the brain. When you change that motor skill even slightly ie bend your knee a little bit more, reach your arm a little further, that sends a slightly different message.

- **2. Teach a child to proper amount of pressure or force production.** Give them examples of what is appropriate and what is not. For example, perhaps demonstrate a proper amount of pressure to give when hugging someone. Can the child give you a hug back with the correct pressure. if not, give them some verbal feedback ie too soft, too hard or just right. Try this for other activities touching a person when playing tag, writing with a pencil, running and stopping on command, etc. Work on body awareness activities to help the child learn where they are in space relative to themselves and others.
- **3. Provide verbal cues** to help children understand the amount of force to produce. For example when teaching a child to respond with less force try "pretend you are a bubble and you don't want to pop". When you are landing from a jump try "landing like a snowflake slowly falling to the ground" or "land like a feather".
- **4. Practice, practice.** Once you have taught them some new skills with regards to force production practice the skills in different environments. Practice outside in large open spaces. Practice indoors in small spaces. Practice in loud settings and quiet settings. Practice moving fast and moving slow.
- **5. Motor planning activities.** Now start using those skills in higher level motor sequences. Set up obstacle courses where children have to control their bodies and avoid stationary and moving obstacles. Practice following verbal commands to move in different directions at different speeds.
- **6. Postural control activities.** Children need a stable core to work off to create proper force production in the extremities. If you can not hold your shoulder steady, it can be very difficult to pick up a cup of water with the correct amount of force without spilling it. If you can not hold your trunk stable while you run, when you move around obstacles your lower extremities will not produce the proper amount of muscle contraction to turn or stop.

<u>Personal Space Journey</u> – Collection of activities to teach children about personal space including many body awareness exercises and a social story on personal space. FIND OUT MORE INFORMATION http://www.yourtherapysource.com/personalspacejourney.html

Sitting Postural Control, Focused Attention and CP



Pediatric Physical Therapy published research on whether focused attention changed as sitting postural control improved in 19 children with mild to moderate cerebral palsy (mean age 21.47 months). Each participant was evaluated for focused attention and sitting scores pre and post intervention. The intervention consisted of physical therapy sessions (perceptual motor training, home program and body weight supported training) to improve sitting postural control in the children. The intervention was 45 to 60 minutes for 8 to 12 weeks at 1-2 sessions per week. The results indicated that:

- children who were sitting independently showed a significant increase in the mean longest focused attention (longest period of time the child focused on an object) post-intervention.
- children who were crawling post-intervention showed a significant decrease in focused attention.
- total focused attention significantly increased post intervention.
- global focused attention (qualitative measure of the child's interest) significantly increased post intervention in the sitters but not the crawlers.
- the sitting scores on the GMFM increased significantly in all children.

Sitting postural control and the development of focused attention was associated in children with cerebral palsy. As sitting control improves, it may be a key time for children to learn and attend to objects. Although, early mobility may decrease long periods of focused attention.

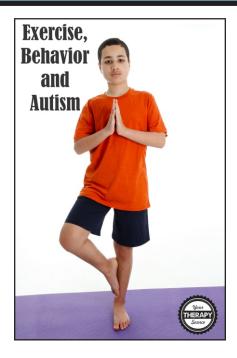
Reference: Surkar, Swati M. PT et al. Sitting Postural Control Affects the Development of Focused Attention in Children With Cerebral Palsy. Pediatric Physical Therapy. Spring 2015 – Volume 27 – Issue 1 – p 16–22. doi: 10.1097/PEP.00000000000000097.

Motor Skills to Children with

Cerebral Pals

<u>Teaching Motor Skills to Children with Cerebral Palsy and Similar Movement Disorders – A Guide for Parents and Professionals.</u>
FIND OUT MORE http://yourtherapysource.com/CPmotorskills.html

Exercise, Behavior and Autism



Autism published a research review on the literature regarding behavioral outcomes of exercise interventions for individuals with autism spectrum disorder aged less than 16 years old. Thirteen studies were included.

The results indicated:

- 1. exercise interventions consisting individually of jogging, horseback riding, martial arts, swimming or yoga/dance can result in improvements to numerous behavioral outcomes including stereotypic behaviors, social-emotional functioning, cognition and attention.
- 2. horseback riding and martial arts may produce the greatest results with moderate to large effect sizes, respectively.

The researchers recommend additional research with well-controlled designs, standardized assessments, larger sample sizes and longitudinal follow-ups. Also, additional research is needed during early childhood (aged 0–5 years) and adolescence (aged 12–16 years) in order to better understand the how exercises can have positive behavioral benefits for children with autism.

Reference: Emily Bremer, Michael Crozier, and Meghann Lloyd. A systematic review of the behavioural outcomes following exercise interventions for children and youth with autism spectrum disorder. Autism 1362361315616002, first published on January 28, 2016 doi:10.1177/1362361315616002.

Delayed Effects of Coordination Exercises on Attention Span in Children

Perceptual and Motor Skills published research on the effects of an acute bout of coordinative exercise in physical education on the attention of 90 primary school children. The experimental group consisted of 48 children who received a cognitively demanding physical education 45 minute lesson consisting of different coordination exercises. The control group consisted of 42 children who attended a normal sedentary school lesson learning language skills.

The coordination tasks were cognitively demanding physical activities that required specific higher-order cognitive processes, such as executive functions. The experimental group started the lesson with 7 minutes of running to music where specific actions had to be performed based on certain words that were said in the song (ie touch the ground when a certain word was sung). The group then started exercises in 6 different



Delayed Effects of Coordination Exercises on Attention Span in Children

stations with various levels of difficulty. Some examples of the stations were: balance on a bench while bouncing a basketball in one hand and a volleyball, catch a ball with a certain hand based on the color of the ball, obstacle course and pass a ball to a partner a certain way based on the color of the ball.

Each participant was evaluated before, immediately after and 90 minutes after each experimental condition with the d2 Test of Attention. The results indicated the following:

1. children's attentional performance increased in the experimental group that participated in the physical education lesson, not immediately but 90 min. after completion of the coordination exercises.

The authors concluded that delayed attention span benefits from acute physical activity are important for the overall learning process, because increased attention is a necessary component to achieve academic success.

You can read the full text article here http://www.amsciepub.com/doi/10.2466/22.06.PMS.121c22x1

Reference: Mirko Schmidt, Fabienne Egger, and Achim Conzelmann (2015) DELAYED POSITIVE EFFECTS OF AN ACUTE BOUT OF COORDINATIVE EXERCISE ON CHILDREN'S ATTENTION. Perceptual and Motor Skills: Volume 121, Issue, pp. 431-446.



25 Bilateral Coordination Exercises

Find out more about 25 Bilateral Coordination Exercises with QR Codes at http://yourtherapysource.com/bilateralcoordination.html

Feedback Frequency with Children



How often do you provide feedback for children when learning a motor task? Previous research with adults indicates that providing feedback 100% of the time when learning a new task is less effective than when less feedback is provided. In addition, previous research has indicated that children with cerebral palsy benefit from less feedback whereas typical developing children benefit from more feedback. Physical Therapy published research where children threw beanbags for accuracy at an unseen target while walking or while standing still. Knowledge of results was provided 100% of the time and 33% of the time. Retention tests without feedback were performed 5 minutes later and then one-week later. Also, transfer tests were completed to check the generalizability of learning.

The results indicated the following:

- 1. learning was improved on the easy version of the task when knowledge of results was provided 33% of the time during practice.
- 2. learning was improved in the difficult version when knowledge of results was provided 100% of the time during practice.

The researchers suggest that when teaching motor skills to children one should provide feedback based on the complexity of the task.

When you are teaching children new motor skills do you take into account how difficult the task is and how often you provide feedback? In my opinion, I find it to be human nature – when a child is struggling to learn a new task I provide more feedback and if the task is easier you do not need to provide as much feedback.

<u>Punch Cards and Reward Cards:</u> Download of 40 punch cards and 10 reward cards for motivation to complete pediatric therapy goals. Set goals for the student to achieve. When the student completes an activity, punch a hole in the card. After 10 punches, the student chooses a reward card (with free prize suggestions). Also included is a list of 30 free or low cost rewards.

FIND OUT MORE INFORMATION http://www.yourtherapysource.com/punchcards.html

Reference: Sidaway B, Bates J, Occhiogrosso B, Schlagenhaufer J, Wilkes D. Interaction of Feedback Frequency and Task Difficulty in Children's Motor Skill Learning. Phys Ther. DOI: 10.2522/ptj.20110378 Published July 2012

5 Gross Motor Activities for Small Spaces

As school based therapists, we are frequently working on gross motor skills in small spaces. In my experience, I have worked in crowded classrooms, hallways, under stairwells and even closets. You have to come up with creative ideas to get students moving without the benefits of a large gym or outdoor space. Here are 5 easy gross motor activities for small spaces:

1. Yoga Cards and Games: This download is a collection of 30 full sized yoga cards (8.5" x 11") with directions, Sun Salutation sequence and over 20 game ideas with small size yoga cards (4" x 5"). They are reproducible for the clients on your caseload or students in your classroom. Send them home for carry over activities. Find out more at http://www.yourtherapysource.com/yogacards.html

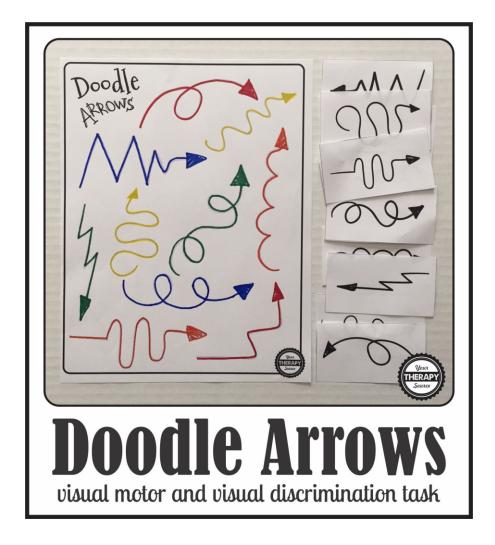


- **2. Classroom Activity Posters:** Classroom Activity Posters is a collection of 16 exercise activities, divided into four groups: posture, alerting, ready to work and focus/balance. All of the exercises are performed in standing. Try these activities prior to starting fine motor activities, for posture breaks, to refocus students attention and for vestibular/ proprioceptive input in the classroom. Find out more at http://www.yourtherapysource.com/cap.html.
- 3. Sensory Motor Game Boards: This is a download of 7 game boards that promote muscle strengthening, eye-hand/foot coordination, gross motor skills, fine motor skills, body awareness and motor planning. Find out more at http://www.yourtherapysource.com/sensoryboards.html
- <u>4. Adventure Skill Self-Regulation Flash Cards:</u> This 16 Flash Card Set in printable PDF format includes health lessons and self-regulation techniques that combine creative movement, yoga and Brain Gym®. Find out more at http://www.yourtherapysource.com/movewithmeselfregulation.html
- <u>5. Brain Breaks:</u> Download our most popular freebie of all time Roll Some Brain Breaks at http://www.yourtherapysource.com/rollsomefunfree.html. Check out all the brain break titles that encourage physical activity with minimal to no equipment and can be done in small spaces here http://www.yourtherapysource.com/brainbreaks.html

Wait! I have to include one more bonus idea...

6. The ABC's of Movement®: educational flash cards that combine movement with literacy development. Kids love these colorful flash cards that merge learning the alphabet with twenty six fun, noncompetitive movement activities. Find out more here http://www.yourtherapysource.com/abcmovement.html

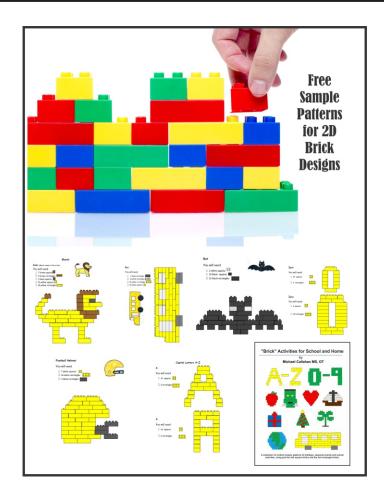
Doodle Arrows



Here is a great new freebie to practice visual discrimination and visual motor skills.

You can download Doodle Arrows at Your Therapy Source http://www.yourtherapysource.com/freedoodlearrows.html

Brick Design Activity Pages for School and Home



Here are some sample pages from a great new download "Brick" Activities for School and Home by Michael Callahan, MS, OT. Created by an OT with 25+ years of experience, these two dimensional designs offer a just right challenge for some students. Using only 2×2 and 2×4 LEGO® type blocks, children can copy the holiday themed projects, letters and numbers. For some children, typical three dimensional LEGO® designs can be extremely difficult to copy and manipulate all the different size bricks. These brick activities have varying degrees of difficulty but are all two dimensional and only use two sizes of the LEGO® type bricks. See below for some completed 2D vertical designs created from the the "Brick" Activities for School and Home written by Michael Callahan. Get more information about the download at Your Therapy Source http://www.yourtherapysource.com/brick.html.

Gross Motor Skills and Dressing



The ability to complete the functional task of dressing requires various gross motor skills, balance and coordination skills. The Functional Skills for Kids series written by occupational and physical therapy bloggers on developing 12 functional skills for children continues today with the topic of dressing. Each month throughout 2016, we will discuss the development of one functional skill in children addressing the many components of that skill.

Read the post on Gross Motor Skills and Dressing at http://yourtherapysource.com/blog1/2016/04/20/gross-motor-skills-and-getting-dressed/

Memory Challenge



Challenge memory skills with this freebie. Study the 12 objects from the zoo, cover it up and see how many you can remember. Download the freebie and some more game ideas to create to test your visual memory skills.

Download the Memory Challenge freebie here - http://yourtherapysource.com/blog1/2016/04/29/visual-memory-challenge/

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