



Your Therapy Source News

Digital magazine for pediatric occupational and physical therapists.



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www.YourTherapySource.com

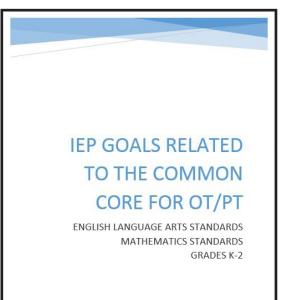








New Products



Title: IEP Goals Related to the Common Core for OT/PT Grades K-2

Summary: Download of 6 files to align English Language Arts and Mathematics standards for grades K-2 with educationally relevant OT/PT goals

List Price: \$19.95 Sale Price until 2/28/14: \$12.95

Your Therapy Source Inc

www.YourTherapySource.com/commoncorek2



Title: Winter Olympic Brain Breaks

Summary: Download includes 16 Winter Olympic Brain Breaks, ideas for use and calm down poem

List Price: \$2.99 Sale Price: \$1.99 until 2/28/14

www.YourTherapySource.com/winterolympics

Tips to Guide Play to Help Young Children Reach IEP Goals

Play for young children is crucial to healthy development. Pediatric therapists who work in early childhood education know the importance of play and how to use it to reach IEP goals that are set for specific children. When a child is evaluated for therapy services, the therapist observes the child in the classroom setting. Therapists will then often consult with teachers and school staff on using different toys, activities and centers to encourage practice of motor skills and sensory development. Here are several tips to fine tune your observation skills and to guide children's play in the classroom.

1. Observe the environment.

Can the child access all the toys and activities? Are activities practiced in different environments to encourage generalization of skills?

2. Observe what the child does during free play. What toys does the child like to play with the most? During free play what centers does the child spend the most time in?

3. Observe what toys or activities the child prefers.

Just like learning styles in older children, you can assess learning styles in little ones by what toys they prefer. Does a child prefer visual, auditory, tactile or kinesthetic activities?

Once these questions are answered use the gathered information to create a plan of action. Make sure that if possible all of the toys are accessible for the children. Provide the classroom staff with specific ways to generalize skills across different centers. After determining a child's toy preferences use that knowledge to make suggestions regarding toy placement. If a child dislikes a certain center, try adding favorite toys into that center to initially engage the child. After these ideas have been tried and a child is still not engaging in certain centers, provide prompting by adults in the classroom. Make sure that the adults provide the least amount of prompting that is necessary.

Prompting can be done along a continuum such as:

- 1. Present the activity to the child
- 2. Provide a verbal request to play.
- 3. The adult can model how to play.
- 4. The adult uses hand over hand to assist with play.

At each stage of prompting the adult should wait several seconds for the child to interact following the prompt before moving on the next level of prompting.

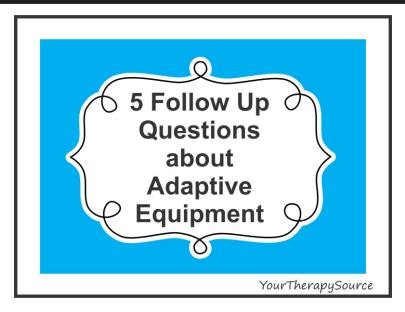
Each time that you observe a child in a natural setting, remember to observe closely to ensure that the environment is suitable for developmentally appropriate play.

Reference: DiCarlo, C., Vagianos, L. (2009) Using Child Preferences to Increase Play Across Interest Centers in Inclusive Early Childhood Classrooms. Young Exceptional Children 12:4



Tips to Guide Play to Help Young Children Reach IEP Goals

5 Follow Up Questions About Adaptive Equipment



Once a piece of adaptive equipment is put in place to use with a student, therapists need to follow up frequently. Whether the adaptive equipment is a pencil grip or a tablet, on going assessment is needed. Here are 5 follow up questions to answer after implementing adaptive equipment:

1. Is it being used at all? May sound ridiculous but we all have seen many pieces of adaptive equipment gather dust.

2. Is it being used when it was suggested for use? For example, perhaps special adaptive seating was recommended for seat work but it is being used during floor time on the rug.

3. Is the tool suiting the needs of the student? Once the equipment has been used, make sure is it helping the student to accomplish a functional goal.

4. Does the equipment need to be modified in any way? If the tool is not accomplishing the task, can it be tweaked or does a different modification need to be put into place. Children grow very quickly, always recheck for sizing.

5. Is the student comfortable using the equipment? Check to make sure that the student agrees with using the equipment. If the student is not on board with using it, the equipment will not be used. Also, is it truly comfortable to use the equipment? Check for fatigue, skin breakdown, pain level, etc. to ensure comfort and a pain free experience.

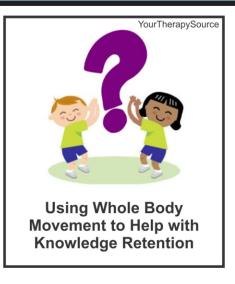
Need ideas? Check out Modifications and Interventions for School - Reporting Forms

This book, in printed or electronic format, provides pediatric therapists with over 60, reproducible reporting forms with hundreds of suggested modifications and interventions for students. Track progress once modifications are put into action.

Find out more at *http://yourtherapysource.com/modifications.html*

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Using Whole Body Movement to Help with Memory



At the University of Arizona there is the Embodied Games for Learning Lab. The lab is creating games for K-12 classrooms that include movement with learning. The researchers have found that students retain information better when they use their whole body to learn the information.

One of the lead researchers, Mina Johnson-Glenberg, states that

"Our controlled studies are showing that whenever students use gestures to learn, they actually are remembering information longer...Often, our immediate post-tests show results with no significant differences associated with learning from embodied games. However, we do see significant differences when students return for follow-up testing a week later. At that point, we are finding that those students who learned with gestures are retaining the information longer."

The students are retaining information longer when students use gestures to learn.

The researchers hypothesize that using motor memory provides an extra memory trace that helps students recall the information later. They are working on creating motion capture games using the Microsoft Kinect.

Reference: Crawford, Judy. Young students jog, jump and dance to retain what they learn. Retrieved from the Medical Express on the web on 1/25/2014 at http://medicalxpress.com/news/2014-01-young-students-retain.html#nwlt

Need ideas? Check out Get Up and Learn! How to integrate movement with learning

Summary: This is an electronic book of 48 pages with over 35 activities that incorporate movement and learning.

Find out more at http://yourtherapysource.com/getuplearn.html

Goal Directed OT Programs Effective for Unilateral CP



A systematic review of the efficacy of nonsurgical upper limb therapies for children with unilateral cerebral palsy was published in Pediatrics. There were 42 randomized control or comparison trials that met the inclusion criteria. The results indicated the following:

- moderate to strong effects were in favor of intramuscular injections of botulinum toxin A and occupational therapy (OT) to improve UL and individualized outcomes compared with OT alone were identified.
- constraint-induced movement therapy achieved modest to strong treatment effects on improving movement quality and efficiency of the impaired UL compared with usual care.
- weak treatment effects were reported for most outcomes when constraint therapy was compared with an equal dose of bimanual OT; both yielded similar improved outcomes.
- action observation training and mirror therapy should be viewed as experimental.

The researchers concluded that there is:

- modest evidence for intensive activity-based, goal-directed interventions (eg, constraintinduced movement therapy, bimanual training) being more effective than standard care in improving UL and individualized outcomes.
- little evidence to support block therapy alone as the dose of intervention is unlikely to be sufficient to lead to sustained changes in UL outcomes.
- strong evidence that goal-directed OT home programs are effective and could supplement hands-on direct therapy to achieve increased dose of intervention.

Reference: Leanne Sakzewski, Jenny Ziviani, and Roslyn N. Boyd. Efficacy of Upper Limb Therapies for Unilateral Cerebral Palsy: A Meta-analysis. Pediatrics 2014; 133:1 e175-e204; published ahead of print December 23, 2013, doi:10.1542/peds.2013-0675

Need ideas? <u>Active Arms</u> - Download of an electronic book of 30 activities for individuals with moderate to significant motor delays.

Find out more information at *http://yourtherapysource.com/activearms.html*

5 Reasons Why Recess Is Important for Child Development

No matter what the weather, schools need to encourage recess time. Whether it be free play time outdoors on playground equipment, using loose parts (ie balls, jump ropes, etc) or indoor time on rainy, cold days, students benefit from the break for some of the following reasons:

1. **Children learn self regulation** and the ability to follow rules during recess.

2. **Sensory motor skills** are being developed during recess time.

3. **Cognitive skills**, such as mathematical concepts (counting, shapes, spatial awareness) and science skills (problem solving), are reinforced on the playground.



5 REASONS WHY RECESS IS IMPORTANT FOR CHILD DEVELOPMENT

4. Children's **behaviors in the classroom** have been shown to improve if they experience at least one period of recess per day lasting a minimum of 15 minutes.

5. **Physical activity in children** is important to control weight, reduce blood pressure, raise good cholesterol, reduce the risk of diabetes and improve psychological well being. Physical activity also affects concentration, elevates mood, enhances creativity and facilitates memory.

Need ideas for recess? Check out <u>50 Sensory Motor Activities for Kids</u> at *http://yourtherapysource.com/50book.html* or <u>Roll Some Fun</u> for indoor recess ideas at *http://yourtherapysource.com/rollsomefun.html*

References:

National Association of Early Childhood Specialists in State Departments of Education (2001) Recess and the Importance of Play - A Position Statement on Young Children and Recess. Retrieved from the web on 3/7/10 at http://w4.nkcsd.k12.mo.us/~rbeckett/RECESS%20AND%20THE%20IMPORTANCE%20OF%20PLAY.htm.

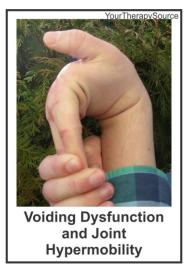
Barros, Romina M., Silver, Ellen J., Stein, Ruth E. K. School Recess and Group Classroom Behavior Pediatrics 2009 123: 431-436 American Heart Association Scientific Position on Physical Activity (Exercise) and Children. Retrieved from the web on 3/10/10 at http://www.americanheart.org/presenter.jhtml?identifier=459

Rice, M. Bulk Up the Brain. Retreived from the web on 3/10/10 at http://physical-therapy.advanceweb.com/Editorial/Content/Editorial.aspx?CC=120347

Parker-Pope, T. (2010) Play, Then Eat: Shift May Bring Gains at School. New York Times Retrieved from the web on 3/7/10 at http://well.blogs.nytimes.com/2010/01/25/play-then-eat-shift-may-bring-gains-at-school/?8dpc

Egger JR, Bartley KF, Benson L, Bellino D, Kerker B. Childhood Obesity is a Serious Concern in New York City: Higher Levels of Fitness Associated with Better Academic Performance. NYC Vital Signs 2009, 8(1): 1-4.

Voiding Dysfunction and Joint Hypermobility



The *European Journal of Pediatrics* published research on whether there is an increased prevalence of generalized joint hypermobility (GJH) in children with voiding dysfunction. The participants included 226 children (5 to 14 years) including 113 patients diagnosed with voiding dysfunction and 113 sex/age/body mass index-matched normal children were recruited. GJH was evaluated in both groups using the Beighton score (4 or more = hypermobile).

The results indicated the following:

- GJH was significantly more frequent in the children with voiding dsyfunction than in controls
- GJH was more prominent in girls than boys
- Urinary tract infection was the most frequent features in children with voiding dysfunction
- in the group with GJH and voiding dysfunction, urinary tract infection remained the most common manifestation among the girls while constipation was the most prevalent manifestation among the boys.

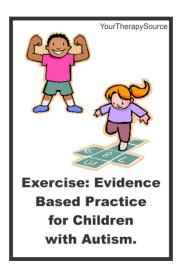
The researchers concluded that children with voiding dysfunction have significantly higher prevalence of GJH compared to normal children. Further studies are recommended to determine the cause and effect of GJH and voiding dysfunction to help develop a multidisciplinary approach in understanding and management of voiding dysfunction in children.

Reference: Abdol-Mohammad Kajbafzadeh et al. Generalized joint hypermobility and voiding dysfunction in children: is there any relationship? European Journal of Pediatrics. February 2014, Volume 173, Issue 2, pp 197-201

Need ideas? Check out Play Strong: Activities to Promote Muscle Strengthening in Children through Play

This is a collection of 40+ activities that promote muscle strengthening in children. Find out more at *http://yourtherapysource.com/playstrong.html*.

Exercise: Evidence Based Practice for Children with Autism



The University of North Carolina at Chapel Hill has created an amazing report updating evidence based practices for children, youth, and young adults with autism. This document is over 100 pages and it goes into extensive detail on how each evidence based practice was included.

I have perused the document and there is relevant information for all pediatric therapists who work with children with autism. I highly recommend that you read the document for yourself to help guide your treatment sessions which can be downloaded here http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/2014 -EBP-Report.pdf. There are excellent charts that summarize what evidence based practices are suitable for specific age groups.

Here are the highlights related to OT/PT for children with autism:

- Exercise is now included as an evidence based practice in helping children with autism. According to the matrix table, the participants in an exercise group reported improvements in behavior (ages 0-14 years), school readiness (0-14 years), academic (0-5 years) and motor (6-14 years).
- Prompting, Reinforcement, Task Analysis, Technology Aided, Instruction and Intervention, Time Delay, Video Modeling and Visual Support all were labeled evidence based practices where improvements were reported in motor areas ages 0-5 years old and 6-14 years old.
- Sensory Diets and Sensory Integration and Fine Motor Interventions were listed as other focused intervention practices with some support (were excluded from evidence based practices for autism due to insufficient evidence).

Reference: Wong, C., Odom, S. L., Hume, K. Cox, A. W., Fettig, A., Kucharczyk, S., ... Schultz, T. R. (2013). Evidence-based practices for children, youth, and young adults with Autism Spectrum Disorder. Chapel Hill: The University of North Carolina, Frank Porter Graham Child Development Institute, Autism Evidence-Based Practice Review Group. This report is available online at

http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/2014-EBP-Report.pdf

Need ideas? Classroom Activity Posters

Classroom Activity Posters is a collection of 16 exercise activities, 4 large posters and a brief, simple video demonstration of each exercise. The posters are divided into four groups: posture, alerting, ready to work and focus/balance. All of the exercises are performed in standing.

Find out more at *http://yourtherapysource.com/cap.html*.

10 Ways to Practice Catching and Throwing By Yourself



Here are 10 ways to encourage catching and throwing skills in children that they can do all by themselves:

- 1. Toss a balloon up in the air and catch it.
- 2. Bat a balloon up and down in the air using your hands. How many times can you keep it up in the air without it dropping to the floor?
- 3. Toss a scarf or small handkerchief in the air and catch it.
- 4. Try throwing up a playground size ball and catching it and then progress to a tennis ball.
- 5. Try tossing and catching a ball up in the air standing inside of a hula hoop.
- 6. Walk forward and toss and catch a balloon, scarf or ball depending upon your abilities.
- 7. Toss a balloon or ball up in the air, clap your hands and then catch the ball.
- 8. Bounce a ball on the floor and catch it.
- 9. Bounce a ball on the floor, clap your hands and catch it.
- 10. Toss a ball at the wall, let the ball bounce and catch it.

Need more tips? Check out 25 Tips Sheets for School Based Therapists

These 25 Tip Sheets for School Based Occupational and Physical Therapists are jammed packed with information to distribute to teachers and parents.

Find out more information at *http://yourtherapysource.com/tipsheets.html*

Processing Sight and Sound in Children with Autism

The *Journal of Neuroscience* published research on the senses of sight and sound in children with autism. Vanderbilt University researchers compared 32 typically developing children ages 6-18 years old with 32 high-functioning children with autism, matching the groups in almost every possible way including IQ.



These participants worked through many different tasks, mostly all computer generated. Researchers used different types of audiovisual stimuli such as simple flashes and beeps, more complex environmental stimuli like a hammer hitting a nail, and speech stimuli, and asked the participants to tell them whether the visual and auditory events happened at the same time.

The results indicated that:

- children with autism have an enlargement in something known as the temporal binding window (TBW), meaning the brain has trouble associating visual and auditory events that happen within a certain period of time.
- children with autism also showed weaknesses in how strongly they "bound" or associated audiovisual speech stimuli.

The researchers concluded that children with autism may try to compensate for their changes in sensory function by simply looking at one sense at a time (ie covering their ears during periods of over stimulation). This may be a strategy to minimize the confusion between the senses.

Watch the video at *http://www.youtube.com/watch?v=Iz7ntEvB1r8* for examples of the confusion between the senses and how the research was conducted.

Reference: Boerner, C. Vanderbilt study reveals senses of sight and sound separated in children with autism. Vanderbilt University. Retrieved from the web on 1/15/14 at http://news.vanderbilt.edu/2014/01/senses-of-sight-and-sound-separated-in-children-with-autism/.

Need ideas? Check out **Typical Classroom Sensory-Based Problem Behaviors &** Suggested Therapeutic Interventions

By: Ileana S. McCaigue OTR/L, IMC

Summary: Download of suggested therapeutic interventions based on 12 different problem behavior categories

Find out more at http://yourtherapysource.com/mccaigue.html

5 Ways to Get the Most out of Therapy Sessions



Pediatric therapy sessions last for only a short period of time. A common frequency of pediatric therapy is 1 or 2 visits per week for a 30 minute sessions. It is very difficult to make substantial change during 30 minutes. Therefore, during each therapy session, therapists should be offering carry over of skills to the classroom and home. Here are 5 ways to get the most out of a therapy session:

1. Teach strategies that are appropriate for the child's level and the care giver's level. Certain techniques require several teaching lessons for an adult care giver. In addition, once a technique is taught do not forget to review it in the future.

2. Children learn new skills through multiple practice sessions. Offer suggestions on how specific skills can be practiced over and over during the course of a regular day.

3. Provide visual directions and hand outs that offer more information on specific techniques or activities. This can provide predictability for the children and review for the adults.

4. Be very specific on your expectations and suggestions by setting realistic goals for the week until the next visit. Teachers and parents have other children that they are responsible for on a daily basis. Make sure the goals set are achievable. For example, "Johnny will practice putting his shoes on at least one time per day each day this week".

5. Remember to allow children to be children. This might sound obvious but children enjoy playing and having fun. Boring tasks may result in non compliance or behavioral issues. Keep practice tasks fun and novel. Vary tasks when able and allow children to choose what activities to practice. Act like a child yourself and you may get better results. Follow the child's lead. You may land up learning more than the child.

For simple activities to carry out throughout the day check out Therapeutic Activities for Home and School.

Recent Pediatric Therapy Research



Pediatric Physical Therapy published a systemic review on the efficacy and evidence of using orthoses for children with hypotonia. Ten articles met the inclusion criteria although none were Level I evidence (evidence from properly designed randomized controlled trials).

The results found that data was reported for body structure and activity components, but not participation outcomes. Overall, the current evidence suggests that foot orthoses and supramalleolar orthoses may benefit children with hypotonia but the evidence is low level.

The researchers concluded that many unanswered questions remain regarding orthotic use for children with hypotonia such as: when is the optimal time to introduce orthoses? Are foot orthoses or supramalleolar orthoses more efficacious? Should orthoses be combined with physical therapy?

Reference: Weber, Anna PT, DHS; Martin, Kathy PT, DHS. Efficacy of Orthoses for Children With Hypotonia: A Systematic Review. Pediatric Physical Therapy: Spring 2014 - Volume 26 - Issue 1 - p 38-47. doi: 10.1097/PEP.000000000000011

Physical Therapy published a systemic review of available instruments to measure upper extremity strength in children with cerebral palsy. The researchers identified 6 different measurement instruments. Two test-retest reliability studies were rated as "fair" for the level of evidence. All other studies were rated as "unknown" for the level of evidence.

The researchers concluded the following:

- for measuring grip strength the Jamar® dynamometer is recommended
- to measure other muscle groups HHD dynamometry is recommended
- manual muscle testing (MMT) can be used in case of limited (below MMT grade 4) wrist strength or for total upper limb muscle strength.
- overall, because of lacking information regarding other clinimetric properties one should be cautious with the interpretation of the results.

Reference: Koen J.F.M. Dekkers, Eugene A.A. Rameckers, Rob J.E.M. Smeets, and Yvonne J.M. Janssen-Potten. Upper Extremity Strength Measurement for Children With Cerebral Palsy: A Systematic Review of Available Instruments. PHYS THER published ahead of print January 10, 2014, doi:10.2522/ptj.20130166



Upper Extremity Strength in Children with Cerebral Palsy

Hot Topics

Different Visual Input Crawling Versus Walking

Child Development published research on how visual experiences changed over time in thirty, 13 month olds, who crawled or walked down a straight path wearing a head mounted eye tracker that recorded gaze direction and head centered field of view. In addition, 13 more infants wore a motion tracker that recorded head orientation.

The results indicated the following:

- compared to walkers, crawlers' field of view contained less walls and more floor.
- walkers directed gaze straight ahead at caregivers, whereas crawlers looked down at the floor.
- crawlers obtained visual information about targets at higher elevations—caregivers and toys—by craning their heads upward and sitting up to bring the room into view.

The researchers concluded that visual experiences are intimately tied to infants' posture. Not exactly a newsflash for pediatric therapists but definitely an excellent reminder!

Reference: Kari S. Kretch, John M. Franchak, Karen E. Adolph. Crawling and Walking Infants See the World Differently. Child Development. Early View Article first published online: 16 DEC 2013 DOI: 10.1111/cdev.12206.

Vocational Activities and Autism

The *Journal of Autism and Developmental Disabilities* published research that examined the relationship over time between behavioral functioning (autism symptoms, maladaptive behaviors, activities of daily living) and vocational/educational activities of 153 adults (mean age of 30.2 years) with autism spectrum disorders (ASD).

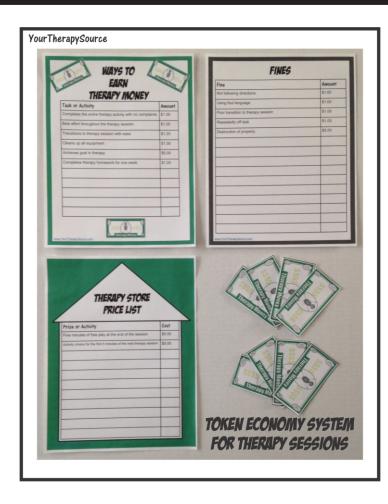
The results were the following:

- greater vocational independence and engagement was related to reductions in autism symptoms and maladaptive behaviors, and improvements in activities of daily living.
- there was no statistical significance in the relationship between earlier behavioral variables (symptoms, behaviors, and activities of daily living) and later vocational independence.

Reference: Julie Lounds Taylor, Leann E. Smith, Marsha R. Mailick. Engagement in Vocational Activities Promotes Behavioral Development for Adults with Autism Spectrum Disorders. Journal of Autism and Developmental Disorders. November 2013 DOI 10.1007/s10803-013-2010-9.

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Token Economy System for Therapy Sessions

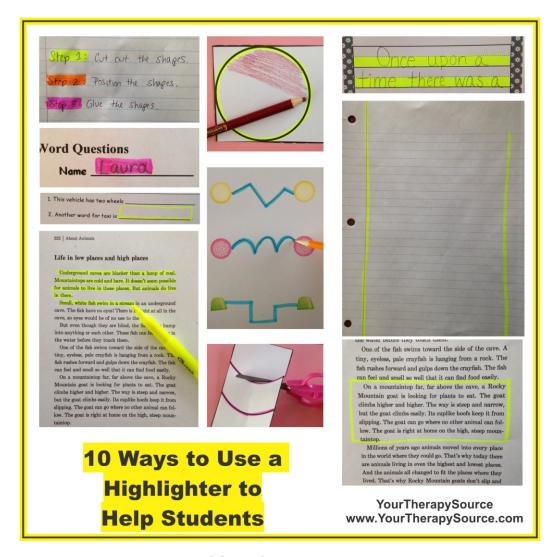


Here is a FREE 4 page printable to help you get started with a token economy system to use during pediatric therapy sessions. Reward your students for a job well done or fine them for infractions. They can then use the money to purchase prizes or rewards.

Go to *http://www.YourTherapySource.com/freetoken* to download your free copy.

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10 Ways to Use a Highlighter to Help Students



Head over to

http://yourtherapysource.com/freehightligher.html to get the details on 10 ways to use highlighters to help students.

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ow us on Facebook ok.com/YourTherapySource	Follow us on Twitter www.Twitter.com/YTherapySource

Trace the word using three different colors.	<u>Move</u> with the words. 1. Air write the word "balloons" using your arms. 2. Make your two hands into the shape of a heart. Repeat 3 times.
Write the word: Example: Daloons 1. . 2. . 3. .	3. Make each hand into a fist as if you are holding balloons. Relax your hands. Repeat 3 times. Find and circle the word "balloons". ballad balloons balloons balloons balloons balloons balloons balloons balloons
<u>Cut</u> the words out below. <u>Create</u> the sente	ence. <u>Glue</u> the sentence.
<u>Cut</u> the words out. balloons	s qo The up.

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