Your Therapy Source News

Digital magazine for pediatric occupational and physical therapists.

Issue 66 - December 2014

www.YourTherapySource.com

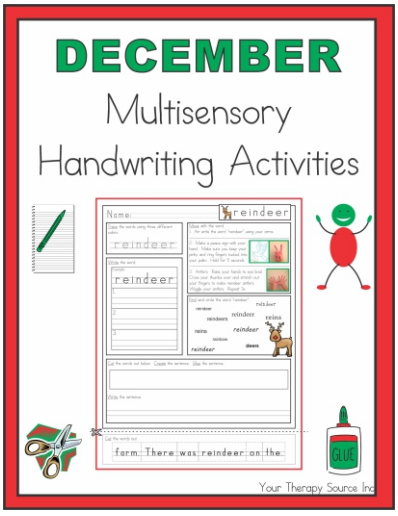
New and Sale Products

Title: Brain Breaks for December

Summary: Download includes 30 December themed Brain Breaks, 5 brain break spinners, Roll Some December Brain Breaks and Calm Down poem

Download: $2.99

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



Title: December Multisensory Handwriting Activities

Summary: Download of December multisensory handwriting worksheets that include movement, scissor skills, gluing, "rainbow" writing and handwriting practice. Also includes a scoring rubric to track progress.

Download Sale Price until 12/31/14: $2.50

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

Title: Fine Motor Activities Pack #2

Summary: Download of 3 fine motor activities that promote cutting skills, finger precision, visual perceptual and visual motor skills.

Download Sale Price until 12/31/14: $0.99

Find out more at:
http://yourtherapysource.com/finemotor2

Food Refusal and Children with Autism

Food Refusal and Autism

The *Journal of the Academy of Nutrition and Dietetics* published research on whether parent report of food refusal based on the characteristics of food was greater in children with Autism Spectrum Disorder (ASD) than in typically developing children. A modified food frequency questionnaire was used for parent-reported food refusal related to characteristics of food (eg, texture/consistency, temperature, brand, color, shape, taste/smell, foods mixed together, or foods touching other foods) was compared between 53 children with ASD and 58 typically developing children aged 3 to 11 years.

The results indicated the following:

1. children with ASD were significantly more likely to refuse foods based on texture/consistency (77.4% vs 36.2%), taste/smell (49.1% vs 5.2%), mixtures (45.3% vs 25.9%), brand (15.1% vs 1.7%), and shape (11.3% vs 1.7%).

2. no differences between groups were found for food refusal based on temperature, foods touching other foods, or color.

3. regardless of ASD status, the percentage of foods refused of those offered was associated with parent reports of food refusal based on all characteristics examined, except temperature.

4. in both groups, food refusal based on color was inversely associated with vegetable consumption in both groups.

The researchers recommend routine screening for food refusal among children with ASD in order to prevent dietary inadequacies that may be associated with selective eating habits.

Reference: Hubbard, Kristie L. et al. A Comparison of Food Refusal Related to Characteristics of Food in Children with Autism Spectrum Disorder and Typically Developing Children. Journal of the Academy of Nutrition and Dietetics , Volume 114 , Issue 12 , 1981 – 1987.

Balance, Age and Autism Symptoms

The *Journal of Autism and Developmental Disorders* published research on the influence of task difficulty and age on balance control in children with Autism Spectrum Disorder (ASD). The researchers tested balance control during increasingly difficult balance conditions in children with ASD and typically developing peers. The relationship between balance control and diagnostic/symptom severity for participants with ASD, including age, was also evaluated.

The results indicated the following:

1. balance deficits in ASD were exacerbated by stance alterations, but were not related to symptom severity when age was considered.

The researchers concluded that there is impaired balance in ASD, especially in challenging conditions, but there was not a link between balance and symptom severity.

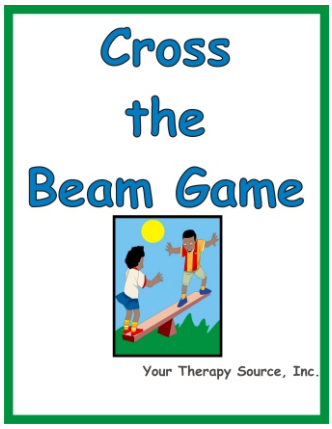
Reference: Sarah A. Graham, Angela E. Abbott, Aarti Nair, Alan J. Lincoln, Ralph-Axel Müller, Daniel J. Goble. The Influence of Task Difficulty and Participant Age on Balance Control in ASD. Journal of Autism and Developmental Disorders. November 2014. DOI 10.1007/s10803-014-2303-7

Title of Electronic Book: Cross the Beam Game

By: Your Therapy Source

Summary: Download of game that encourages balance skills and visual perceptual skills.

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



Benefits of Letting the Children Teach

Do you ever let the students that receive therapy services teach other students? Research has shown that the highest retention rate of what you have learned results from teaching others, with practice the skill coming in a close second. During therapy sessions, therapists spend hours working on practicing and learning new skills. When a child does reach a goal and learns a new skill it would be very beneficial for that same child to teach that skill to another child.

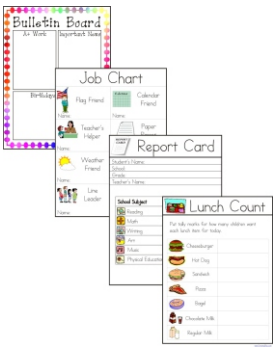
Here are the benefits of teaching others:

1. Demonstrates that you have full knowledge of the skill.
2. Forces you to review what you learned.
3. Provides you with a sense of accomplishment that you are helping others.
4. Helps to commit the information to long term memory and a permanent motor plan.
5. By teaching the skill, the child may have to research the skill even further to explain it properly so you are generating new knowledge.
6. The child will be seen as a role model since he/she was able to learn the skill.

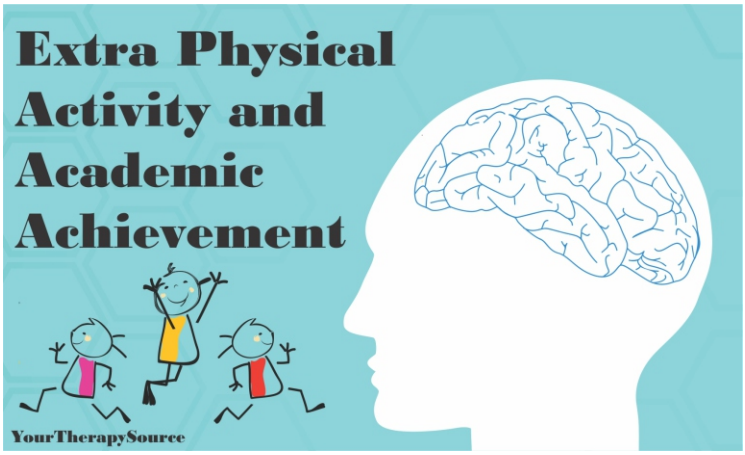
Now of course in therapy there are some skills that would be hard for a child to teach but in general most skills could be taught by a child. In addition, the children may be able to offer tips and insights that adults can not.

Why not give it a try?

Children also love to pretend to be a school teacher. Check out this **Playing Pretend School Packet** that is jammed packed with pretend play printables. Find out more at http://yourtherapysource.com/gpschoolsample.html



Extra Physical Activity and Academic Achievement



Research on the impact of physical activity intervention program on academic achievement was published in the *Journal of School Health*. The study provided 408 twelve year olds with an additional two hours per week of extra play and motion activities. The control groups were three different schools (matched for male/female ratio, average level of income, education and unemployment of parents) who did not receive the extra two hours of physical activity per week.

Academic achievement was tested four years prior to the study and five years later. The results indicated the following:

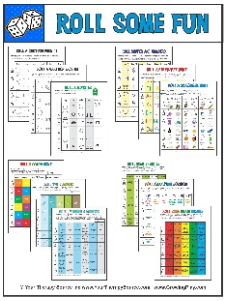
1. Higher proportions of students in the intervention school achieved the national goals in all 3 subjects compared with the reference schools after initiation of the intervention program.

2. The odds for achieving the national learning goals in the intervention school doubled.

3. The odds for achieving the national learning goals did not change or decreased in the control schools.

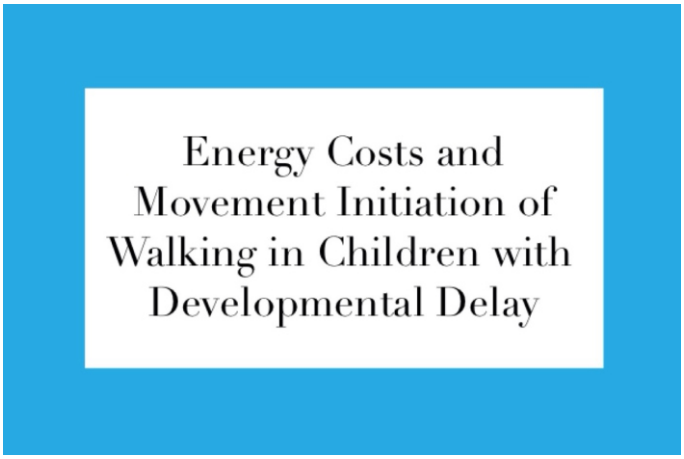
The researchers concluded that promoting physical activity in school by means of a curriculum-based intervention program may improve children's educational outcome.

Reference: Lina B. Käll PhD, Michael Nilsson MD, PhD, andThomas Lindén MD, PhD. The Impact of a Physical Activity Intervention Program on Academic Achievement in a Swedish Elementary School Setting. Journal of School Health Volume 84, Issue 8, pages 473–480, August 2014. DOI: 10.1111/josh.12179



Need some easy ideas to squeeze in physical activity and play time? Check out Roll Some Fun at http://yourtherapysource.com/rollsomefun.html

Energy Costs and Movement Initiation in Children with Developmental Delay



Recent research compared energy costs during walking and movement initiation times in 3-5 year old children with developmental delay (n=12) and children with typical development (n=12). The children participated in various assessments including range of motion in the lower extremities, physiological cost of walking, and movement initiation times. To determine reaction time for goal directed walking a task was designed to evaluate the initiation of movement (the "go play with the toy" task).

The results showed the following:

1. physiological costs of walking were similar in the 2 groups.
2. children with developmental delay walked at a lower speed than children with typical development.
3. children with developmental delay took more time to initiate goal-directed walking.

The researchers recommended that therapists should evaluate the movement initiation ability of 3- to 5-year-old children with developmental delay as part of the design of an overall intervention plan.

Reference: C-N. Chen, PT, PhD et al. Initiation of Movement and Energy Expenditure in Children With Developmental Delay: A Case-Control Study. Published online before print 5 June 2014 doi: 10.2522/ptj.20130443 Physical Therapy October 2014 vol. 94 no. 10 1434-1442

Fine Motor Skills and Prenatal Alcohol Exposure

A systemic review of 24 studies was published on fine motor skills in children with prenatal alcohol exposure (PAE) or fetal alcohol spectrum disorder (FASD). The results were the following:
1. more advanced fine motor skills, such as visual-motor integration, were more frequently impaired than basic fine motor skills, such as grip strength.
2. with regards to assessment, tools that specifically assessed fine motor skills more consistently identified deficits than those which assessed fine motor skills as part of a generalized neurodevelopmental assessment.
3. fine motor impairments were associated with “moderate” to “high” PAE levels.
4. only a few studies reported fine motor skills of children with “low” PAE levels, so the effect of lower PAE levels on fine motor skills remains uncertain.

Reference: Doney, Robyn BSc, BBA et al. Fine Motor Skills in Children With Prenatal Alcohol Exposure or Fetal Alcohol Spectrum Disorder. Journal of Developmental & Behavioral Pediatrics. November/December 2014. Vol. 35 – Issue 9: p 598-609

Need activity ideas for fine motor skillls? Visit YourTherapySource.com at http://yourtherapysource.com/finemotordownloads1.html

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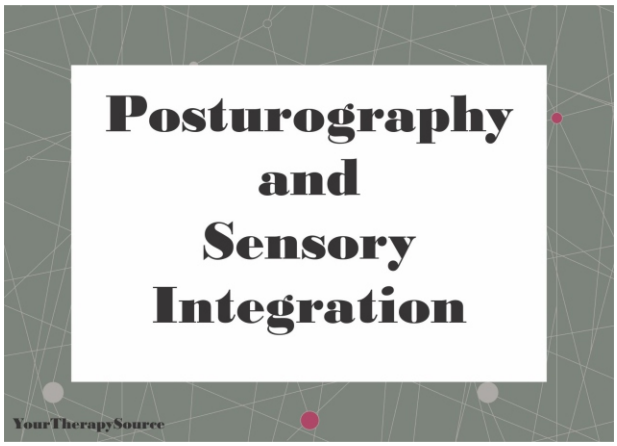
Posturography and Sensory Integration



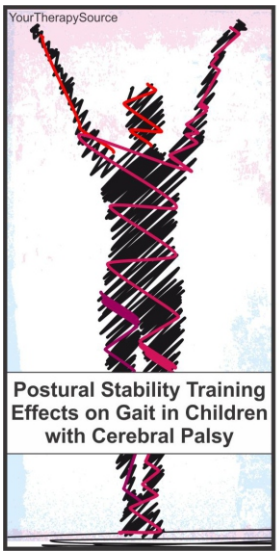
A feasibility study was published on using posturography to monitor changes following vestibular input in children. The participants in the study included 5 children with Autism Spectrum Disorder (ASD) and 5 neurotypical children. Each child received 10 minutes of vestibular swing activity with pre and post evaluations of postural stability under four different conditions and center of pressure data was collected.

The center of pressure data revealed the following:
1. The 5 children with ASD demonstrated decreased mean sway velocity in the eyes open/flat plate condition post-intervention.
2. Four of the five children with ASD demonstrated an increase in sway root mean square and a decrease in anterior/posterior sample post-intervention in the eyes closed, foam pad condition and eyes open, flat plate condition respectively.

The researchers concluded that using posturography with sensory integration warrants further investigation.

Reference: Senia Smoot Reinert, Kurt Jackson and Kimberly Bigelow. Using Posturography to Examine the Immediate Effects of Vestibular Therapy for Children with Autism Spectrum Disorders: A Feasibility Study. Early view online Physical & Occupational Therapy in Pediatrics. DOI: 10.3109/01942638.2014.975313

Postural Stability Training Effects on Gait in Children with Cerebral Palsy



Research was published assessing the dynamic bilateral postural stability on balance control and gait parameters in 30 children with spastic diplegia cerebral palsy (8-10 years old). The children were divided into two groups. One group received 2 hours per session of physical therapy for 3x/week for 8 weeks. The second group received 1.5 hours per session of PT and 30 minutes of dynamic postural stability training program using the Biodex Stability System. All children received pre and post assessments to evaluate the stability indices (anteroposterior, mediolateral, and overall) and three-dimensional motion analysis system to evaluate the spatiotemporal parameters including step length, velocity, cycle time, stance, and swing phase percentage.

The results indicated the following:

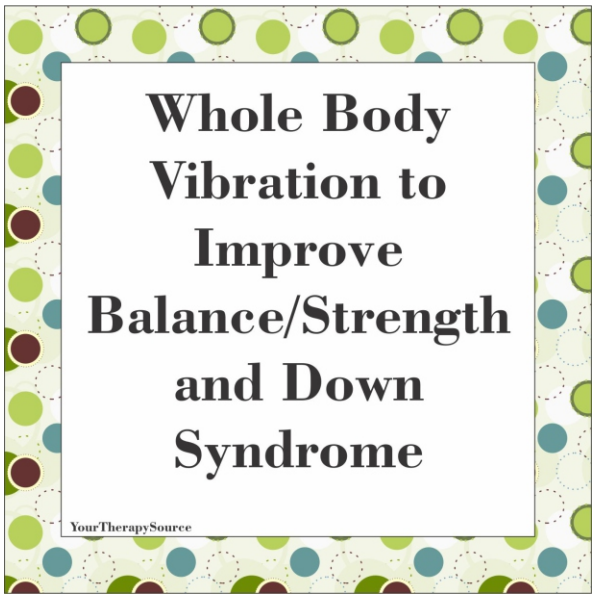
1. children in both groups showed significant improvements in the mean values of all measured variables after treatment with a significant reduction in stability indices and improvement in gait parameters.

2. significant differences were recorded in all measured parameters in the group that received the stability training, when compared with those who only received physical therapy.

The researchers concluded that balance training on the Biodex Stability System paired with traditional physical therapy may improve balance control and gait functions in children with spastic diplegic cerebral palsy.

Reference: Abd El-Kafy, Ehab Mohamed; El-Basatiny, Heba M. Youssr M. Effect of Postural Balance Training on Gait Parameters in Children with Cerebral Palsy. AJPM&R. November 2014 – Volume 93 – Issue 11 pp: 931-1018,e1-e8

Whole Body Vibration and Down Symdrome



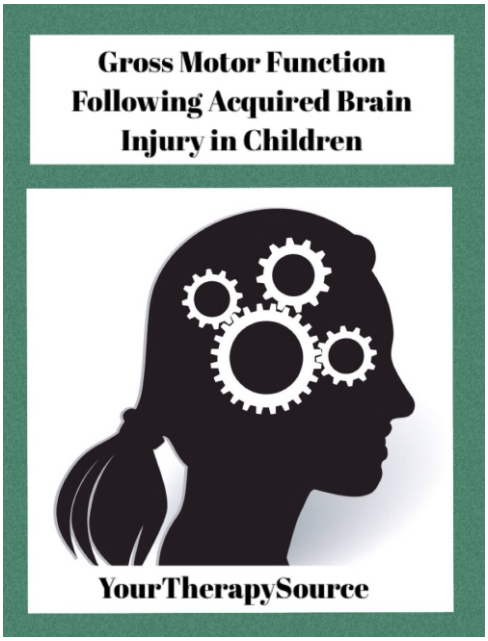
A randomized controlled study was published on 30 children with Down syndrome, where 15 children received physical therapy and 15 children received physical therapy and whole body vibration training. Both groups participated 3x/week for 6 months. The groups underwent stability testing and muscle strength testing before and after the 6 mos of the treatment program.

The results indicated the following:
1. Each group demonstrated significant improvements in stability indices and muscle strength after treatment.
2. significantly greater improvements were seen in the study group (whole body vibration) when compared with the control group.

The researchers concluded that “Whole-body vibration may be a useful intervention modality to improve balance and muscle strength in children with Down syndrome“.

Reference: Eid, Mohamed Ahmed. Effect of Whole-Body Vibration Training on Standing Balance and Muscle Strength in Children with Down Syndrome. American Journal of Physical Medicine & Rehabilitation., Post Author Corrections: October 8, 2014. Published Ahead-of-Print

Gross Motor Function Following Acquired Brain Injury

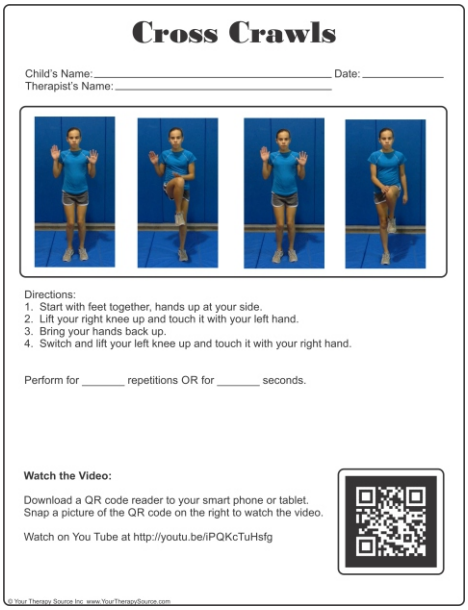


Developmental Medicine & Child Neurology published research on 287 Gross Motor Function Measure (GMFM) observations were made on 74 children with pediatric acquired brain injury (ABI).

The results showed the following:
1. Children sustaining hypoxic–ischaemic injuries made the slowest and least complete recoveries.
2. Older children made faster gross motor recoveries after controlling for aetiology.
3. The time at which gross motor ability began to rise coincided approximately with admission to the rehabilitation facility.
4. Comparable item-difficulty scores in this sample and in the cerebral palsy population suggest comparable sequences of gross motor ability reacquisition.

Reference: Gemma Kelly, Sue Mobbs, Joshua N Pritkin, Margaret Mayston, Michael Mather, Peter Rosenbaum, Robin Henderson and Rob Forsyth. Gross Motor Function Measure-66 trajectories in children recovering after severe acquired brain injury. Developmental Medicine & Child Neurology. Article first published online: 29 SEP 2014 | DOI: 10.1111/dmcn.12592

Bilateral Coordination and Video Modeling



Cross Crawls

Child's Name:_____ Date: _____
Therapist's Name: _____

Directions:
1. Start with feet together, hands up at your side.
2. Lift your right knee up and touch it with your left hand.
3. Bring your hands back up.
4. Switch and lift your left knee up and touch it with your right hand.

Perform for _____ repetitions OR for _____ seconds.

Watch the Video:

Download a QR code reader to your smart phone or tablet.
Snap a picture of the QR code on the right to watch the video.

Watch on You Tube at http://youtu.be/iPQKcTuHsfg

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Here is our latest freebie from a new ebook entitled 25 Bilateral Coordination Exercises. It is an instructional hand out on how to perform the Cross Crawl exercise, including a QR code to link to a video demonstration of the exercise. You can download the freebie here – http://yourtherapysource.com/bilateralcoordinationfreebie.html

If you are not familiar with QR codes, they are a black and white image with squares, that stores website links for reading by the camera on a smartphone. Therefore, when you hand out these bilateral coordination exercise sheets, the child can simply use a QR code reader to take them immediately to the demonstration video. This allows children to watch the video over and over again if necessary to learn the skill. It also helps parents and teachers, so they can check if the child is performing the exercise correctly.

Research has shown that video modeling can help individuals with moderate intellectual disabilities to learn gross motor skills (1). Video modeling has been shown to be effective in teaching skills to children with autism. The research indicated that a child should watch the video 1-3 times before attempting the task (2).

Get more information on 25 Bilateral Coordination Exercises here http://yourtherapysource.com/bilateralcoordination.html

References:

1. Linda C. Mechling and Catherine O. Swindle Fine and Gross Motor Task Performance When Using Computer-Based Video Models by Students With Autism and Moderate Intellectual Disability J Spec Educ November 2013 47: 135-147, first published on January 19, 2012 doi:10.1177/0022466911433859 .

2. Shipley-Benamou et al. (2002) Teaching Daily Living Skills to Children with Autism Through Instructional Video Modeling. Journal of Positive Behavior Interventions July 2002 vol. 4 no. 3 166-177

Brain Break Switcheroo Freebie

Here is a great freebie to give to teachers to help students get the wiggles out and wake up the brain by squeezing in some physical activity.

You can download the 4 page freebie at http://yourtherapysource.com/freeswitcheroobrainbreaks.html

For more brain break ideas visit http://yourtherapysource.com/brainbreaks.html

Name: _____

reindeer

Trace the words using three different colors.

reindeer

Write the word:

Example:
reindeer

1.

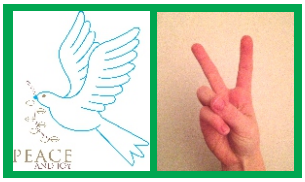
2.

3.

Move with the word.

1. Air write the word "reindeer" using your arms.

2. Make a peace sign with your hand. Make sure you keep your pinky and ring fingers tucked into your palm. Hold for 5 seconds.



3. Antlers: Raise your hands to eye level. Cross your thumbs over and stretch out your fingers to make reindeer antlers. Wiggle your antlers. Repeat 3x.

Find and circle the word "reindeer".

reindeer
reindeer
reindeer
reindeers
reins
reins
reindeer
rainbow
deers
reindeer

Cut the words out below. Create the sentence. Glue the sentence.

Write the sentence.

Cut the words out.

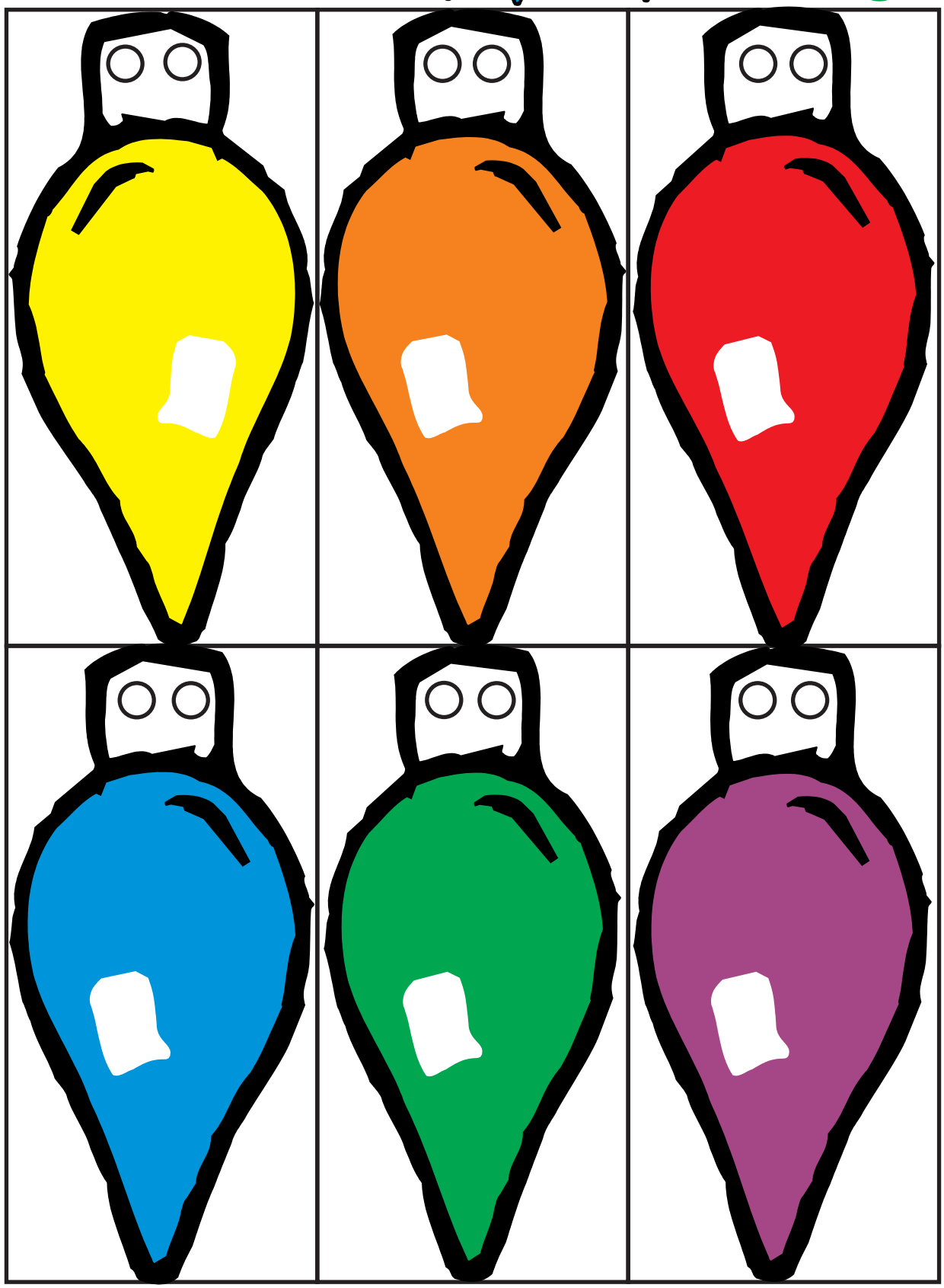
farm.	There	was	reindeer	on	the.

Countdown to the Holidays

Dec. 1:	Talk a walk outdoors. Find at least 5 types of fir tree or bushes.
Dec. 2:	Create your own handmade holiday cards to mail to family and friends.
Dec. 3:	Go on a hunt to find objects that begin with each letter in the word HOLIDAY.
Dec. 4:	Use play clay to create a snowman and a holiday tree.
Dec. 5:	Use rolled up socks to create pretend snowballs. Have a snowball fight.
Dec. 6:	Play with red and green colored water in the sink or sensory table.
Dec. 7:	Decorate a tree outdoors with some popcorn garland that you have made.
Dec. 8:	Knead, roll and bake your favorite holiday bread.
Dec. 9:	Take a walk and collect some pine cones, acorns or rocks.
Dec. 10:	Put glue and glitter on pines cones and rocks. Place in bowl as center piece.
Dec. 11:	Go outdoors. Pretend to float like a snowflake and make pretend snow angels.
Dec. 12:	Make a miniature snowman using marshmallows and toothpicks.
Dec. 13:	Make your body into the shape of a tree, snowman, angel and candy cane.
Dec. 14:	Cut out paper snowflakes and hang in your home.
Dec. 15:	Put paper plates under your feet and pretend to ice skate.
Dec. 16:	Paint a holiday tree. Glue on small balls of tissue paper as ornaments.
Dec. 17:	Turn on holiday music and dance.
Dec. 18:	Create a paper chain with red and green paper. Hang up as a decoration.
Dec. 19:	Take a walk outdoors. Find 5 green objects and 5 red objects.
Dec. 20:	Cut up old holiday cards or holiday pictures into puzzles.
Dec. 21:	Go caroling. Walk around your neighborhood and sing holiday songs.
Dec. 22:	Make a homemade gift for someone special i.e. bookmark or key chain.
Dec. 23:	Prance and move like Rudolph the Red Nosed Reindeer.
Dec. 24:	Stir, mix and bake holiday cookies!

Holiday Lights

Holiday Lights



Directions: Cut out the Christmas lights either as rectangles or the actual lights. Punch holes in the circles. Using yarn or string, lace the lights. Hang up the decoration on the wall or tree.

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- sensory processing resources
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