



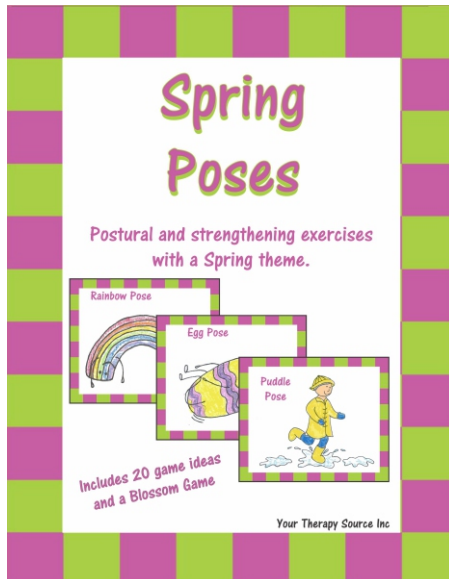
Your Therapy Source News

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

Issue 48 - March 2013

www.YourTherapySource.com

New and Popular Products



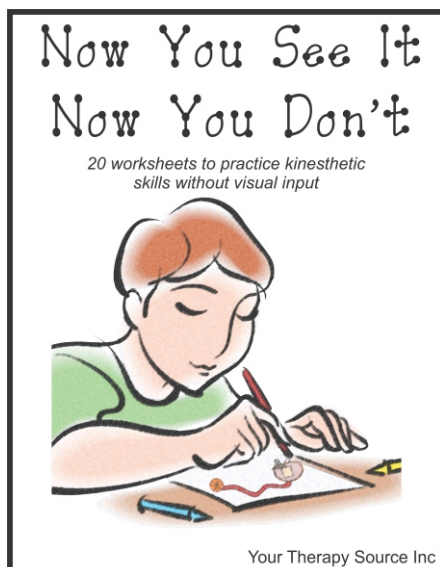
Spring Poses

This is an electronic pdf document of postural and strengthening exercises with a Spring theme

Retail Price: \$3.99

Sale Price until 3/31/13: \$1.99

www.YourTherapySource.com/springposes



Now You See It Now You Don't

This is an electronic pdf document of 20 worksheets to practice kinesthetic skills without visual input

Retail Price: \$1.99

Sale Price until 3/31/13: \$.99

www.YourTherapySource.com/nowyousee

Reflective Questions for Motor Learning

How do you provide feedback to children regarding their performance on a motor skill? Do you provide constructive criticism, positive praise, additional motor commands, additional demonstrations or more trials? Why not ask the child to verbally plan or review their own performance on a motor task. For example, once you request a motor task to be completed ask an open ended question such as:

What do you plan to do?



Then once the motor skill has been completed ask more open ended question(s) such as:

How did you think you did?

What could you have done differently?

Could you have done anything better?

Did you accomplish what you planned to do?

If necessary provide more detailed question(s) such as the following examples:

Did you perform the skill fast enough?

Did you stay on the line?

Did the ball go into the basket?

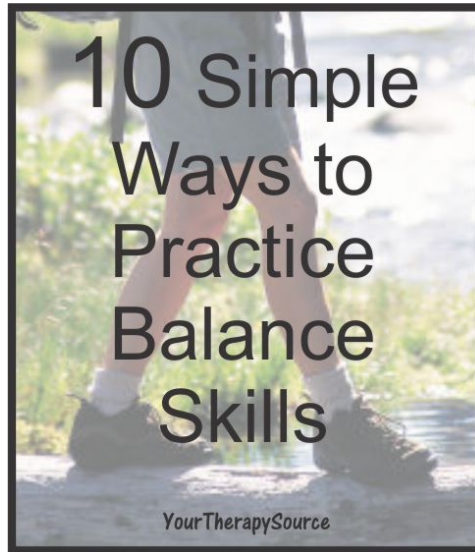
Did you avoid the obstacles?

Did you climb to the top?

And don't forget to allow the children 5-10 seconds to answer the question.

By involving the children in planning and feedback it provides additional input during motor learning trials.

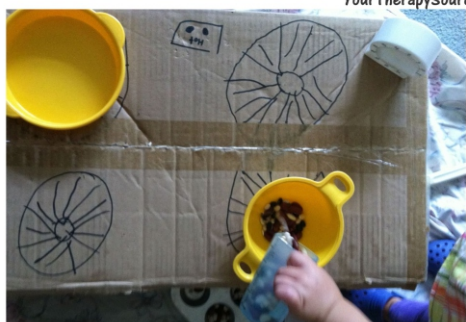
10 Simple Ways to Practice Balance Skills



Here are 10 simple ways for children to work on balance skills throughout the day:

1. Walk up and down stairs or curbs - each time you take a step you are balancing on one foot.
2. Ride a bicycle - this task requires postural control and balance
3. Ride a scooter - obviously three wheeled scooters are easier than two wheeled scooters
4. Walk on uneven terrain - walk on grass, rocks or dirt. Wet, thick mud is a big challenge. Walk on uneven terrain with no shoes on for a bigger challenge ie sand.
5. Play a game of kickball or soccer. You need to stand on one foot to kick the ball.
6. Play follow the leader practicing walking fast, slow, backwards and sideways.
7. Pretend to be a tight-rope walker - Walk heel to toe along any line, try on your toes or your heels.
8. Try putting on your pants in standing - this is a real balance challenge to stand on one foot while putting the other leg in pants. Want to make it harder? Try putting socks on in standing without falling.
9. Walk along curbs or balance beams at the park.
10. Go on a hike searching out some logs or big rocks to climb.

Pretend Play + Sensory Play



PRETEND PLAY + SENSORY PLAY FOR CHILDREN WITH SENSORY SENSITIVITIES

The *Journal of Occupational Therapy, Schools and Early Intervention* published a small study of eight participants with sensory sensitivities according to the Sensory Profile. The participants engaged in messy play either with a pretend theme or without. When pretend play was incorporated with the messy play, the participants showed improvements in the initiation of pretend play.

In the testing conditions the researchers provided meaning to the sensory materials - ie glue the sticky cotton balls onto the bunny picture, make a shaving cream mustache on the smiley face, etc.

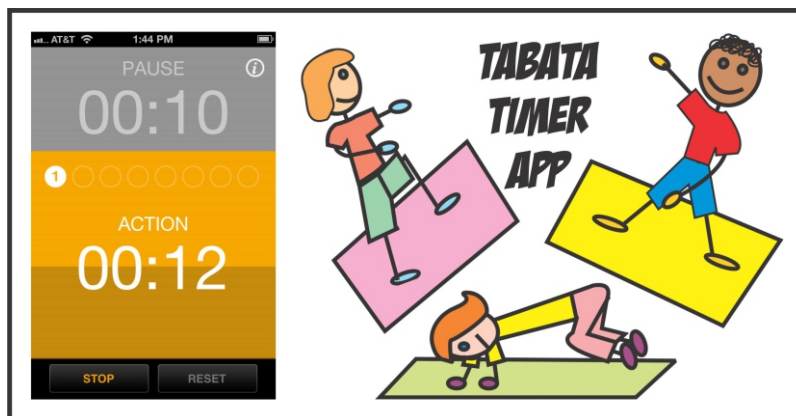
Here are 5 other suggestions to provide meaning to messy play though pretend play:

1. Use baking materials such as cupcake pans to pretend to bake cupcakes with your sensory materials
2. Make pretend cupcakes using cupcake lines, play dough, cotton for icing and beads for sprinkles
3. Use your hands to put shaving cream on a doll and shave it off with a pretend shaver or popsicle stick.
4. Use sand to make a small playscape for Lego figures
5. Wash up dolls or plastic animals with sudsy soap and wash clothes.

What are your favorite pretend sensory play ideas?

Reference: Kristin R. S. Miller OTDTR/L & Alexia E. Metz PhDOTR/L Pretending Enhances Engagement in Messy Play for Children with Sensory Sensitivity. *Journal of Occupational Therapy, Schools, & Early Intervention*. Volume 5, Issue 3-4, 2012

App Review - Tabata Timer



If you follow the blog at all you know I am always on the look out for apps that get kids and adults moving. I have been using this free Tabata Timer app for quite some time now and really like it. Tabata is an exercise protocol based on the work of a Japanese scientist named Izumi Tabat and his colleagues on high intensity interval training. Basically you exercise for 4 minutes going as hard as you can for 20 seconds followed by a 10 second break repeating this 8 times. I have had great success with children combining the Tabata 4 minute exercise routine with physical activity cards.

Start out by selecting at least 4 exercises to complete (you can repeat each one twice) or pick 8 different exercises. I use exercise cards for the children to choose the activities from. I usually pick through the cards for what each specific child needs to work on and then allow the child to choose from that pile. Once the exercises are chosen, if they are new I teach the child the exercise first. If not, we get started. Place the cards on the table and start the Tabata Timer app. It will count down to start with three beeps. Begin the first exercise. As the 20 seconds counts down the timer also provides a visual image of the time elapsing along with the number count down. For the last 3 seconds it beeps. You then rest for 10 seconds. Turn the first card over. Get ready for the 2nd exercise for 20 seconds. Repeat the process until all 8 exercises are completed in 4 minutes.

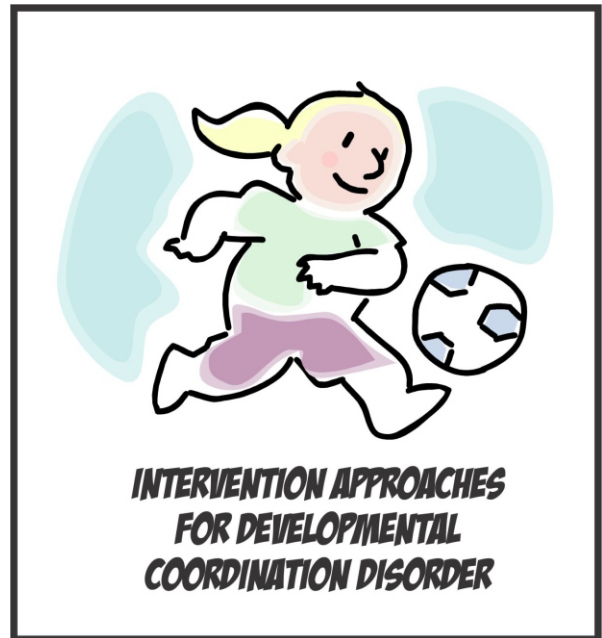
Here is what is so great about this app:

1. Kids are much more motivated to complete the exercises. There is a start and stop time.
2. The visual timer of the time elapsing let's the child see that the exercise is almost completed.
3. The rest period is just short enough for the child to be ready for the next exercise.
4. Kids who are very hesitant to complete aerobic exercise are completing this 4 minute work out without complaint. If I asked them to run for 4 minutes or jump rope for 4 minutes some children just would not participate.
5. Great little app to build endurance. Start a session out with the 4 minute workout and finish up with a 4 minute work out.

If you need physical activity cards, check out Physical Activity Cards and Games , Move Cards and Games and Action Alphabet. You can view these downloads at <http://yourtherapysource.com/sensorymotordownloads.html> and <http://yourtherapysource.com/sensorymotordownloads3.html>

Intervention Approaches for DCD

Developmental Medicine and Child Neurology published a research review on the efficacy of interventions to improve motor performance in children with developmental coordination disorder (DCD). Twenty six studies were included in the review. Interventions were placed into four different types: 1) task-oriented intervention, (2) traditional physical therapy and occupational therapy, (3) process-oriented therapies, and (4) chemical supplements. The results indicated the following:



- strong effects were seen with task oriented intervention and traditional physical and occupational therapy
- weak effect with process oriented interventions
- the evidence for chemical supplements for children with DCD was insufficient for a recommendation

Overall, the researchers concluded that task oriented intervention produced stronger effects. Process oriented interventions are not recommended to improve the motor performance of children with DCD.

Process oriented interventions are broad based and target an underlying process that the child has not developed sufficiently. An example of this would be to improve kinesthetic function which in turn may improve functional motor performance.

Task oriented interventions focus on the task itself. Working with the child's skills, the task is usually taught directly or broken down into component parts. In general, a task oriented approach has been more successful for children with DCD.

References:

Bouwien, C M et al. Efficacy of interventions to improve motor performance in children with developmental coordination disorder: a combined systematic review and meta-analysis. *Developmental Medicine & Child Neurology*. Volume 55, Issue 3, pages 229–237, March 2013.

Kirby, A. and Sugden, D. Children with developmental coordination disorders. *J R Soc Med*. 2007 April; 100(4): 182–186.

Tips and Ideas

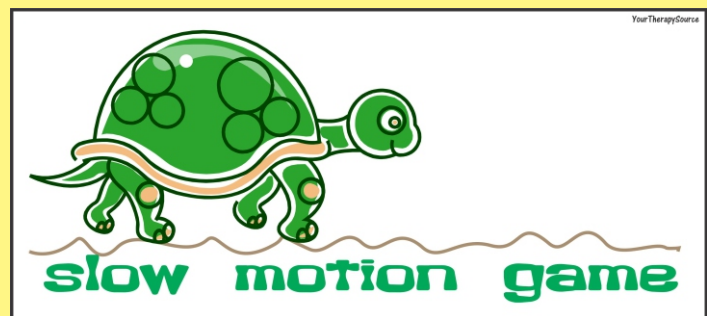
Pre-Sleep Activities and Onset of Sleep

Pediatrics published research on a survey completed by 2017 children ages 5-18 regarding activities reported during the 90 minutes before sleep time. The results indicated that television watching was the most commonly reported activity before sleep time. The participants who had a greater engagement in screen time had a later sleep onset. Participants who reported significantly greater time spent in nonscreen sedentary activities and self care had an earlier sleep onset.

Reference: Louise S. Foley, Ralph Maddison, Yannan Jiang, Samantha Marsh, Timothy Olds, and Kate Ridley Presleep Activities and Time of Sleep Onset in Children. *Pediatrics* 2013; 131:2 276-282; published ahead of print January 14, 2013, doi:10.1542/peds.2012-1651

Here is a fun, simple strengthening exercise that requires no equipment - slow motion. When you slow down a motion it requires more muscle control and a longer muscle contraction. Pretend to act out the following activities in s-l-o-w motion:

Running a race
Shooting a basketball
Walking up or down stairs
Bicycle riding laying on your back
Ballet dancing
Zumba!
Karate kicks
Boxing
Jumping rope
Hopscotch



Try to create a group dance where you all perform synchronized movements in slow motion!

5

4

3

2

1

WAIT FOR A
MOTOR
RESPONSE

Wait for a Motor Response

Do you always remember to wait for a child's motor response following directions? I know I do not. A simple tip is to countdown from 5 (or even 10 for some children) to wait each time you give a specific motor direction. Whether it be about picking up small objects, playing hopscotch or completing a handwriting assignment children need time to process the information in order to form a motor response.

In addition, by giving them time to form the response you get a clearer picture of how they interpreted the verbal directions. If we fire off another verbal motor command before they act on the first direction, then it is hard to determine what information they actually required to complete the task.

So try this challenge - every verbal motor command that you request count to five slowly after each one. See if you notice a difference in the child's independent output.

Hot Topics

Feeding Difficulties and Autism

The *Journal of Autism and Developmental Disorders* has published an analysis of the research related to feeding problems and autism. The review indicated the following:

- significantly more feeding problems in children with autism versus their peers
- examination of dietary nutrients showed significantly lower intake of calcium and protein in children with autism

The researchers recommend that children with autism should receive:

- screenings for feeding concerns and nutritional deficits/excesses
- measurements of gross anthropometric parameters as part of routine medical evaluations
- healthcare providers who review the potential consequences of pursuing an elimination diet taking into account the child's unique feeding and nutritional presentation.

Reference: Emory University (2013, February 4). Children with autism at significant risk for feeding problems and nutritional deficits. ScienceDaily. Retrieved February 19, 2013, from <http://www.sciencedaily.com/releases/2013/02/130204184625.htm>

Limited Functional Capacity in Very Low Birth Weight Premature Children

A cross sectional study was performed comparing 6-9 year old children born before 37 weeks gestation weighing less than 1500 grams and children born full term. Each group of children participated in the 6 minute walk test and the 10 minute shuttle walk test. The results indicated the following:

- the premature children walked shorter distances in the 6 minute walk test
- both groups walked similar distances in the 10 minute shuttle walk test
- walking distance was associated with height and oxygen dependency at 28 days in both the 6 and the 10 minute test

The researchers concluded that children born prematurely with very low birth weight, especially those who had bronchopulmonary dysplasia may present with limited functional capacity during exercise.

Reference: Tsopanoglou, S. P., Davidson, J., Goulart, A. L., de Moraes Barros, M. C. and dos Santos, A. M. N. (2013), Functional capacity during exercise in very-low-birth-weight premature children. *Pediatr. Pulmonol.* doi: 10.1002/ppul.22754

On The Web

Sitting and Walking Predicts Vocabulary Development

Infant Behavior and Development published research on the attainment of sitting and walking and the development of productive vocabulary between ages 16 and 28 months. This longitudinal study found that the earlier the age of unsupported sitting predicted a larger productive vocabulary. In addition, an earlier age of walking predicted a faster rate of growth in productive vocabulary. The researchers concluded that the achievement of motor milestones enhance linguistic development.

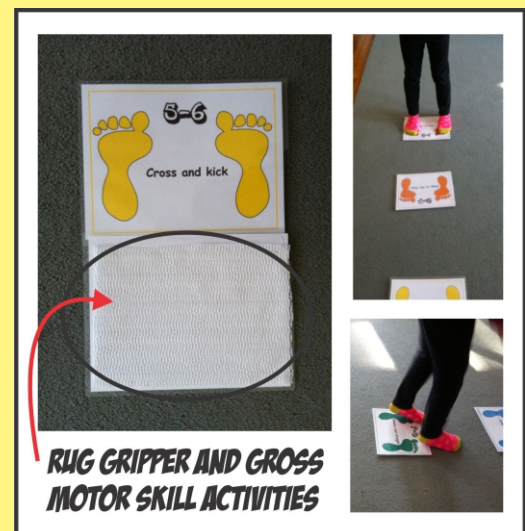
It may help to add this research to justify adaptive equipment such as supportive seating or gait trainers.

Reference: Ora Oudgenoeg-Paz, M. (Chiel) J.M. Volman, Paul P.M. Leseman. Attainment of sitting and walking predicts development of productive vocabulary between ages 16 and 28 months. *Infant Behavior and Development*. Volume 35, Issue 4, December 2012, Pages 733–736.

Rug Gripper and Gross Motor Skills

I have found that visual cues can really help children when practicing gross motor skills. Things like poly spots or cones are great for some kids but sometimes you need a little something extra. Pictured above are the feet from Proprioceptive Poems. These feet are great to provide that extra visual cue as to where you need children to place their feet. Once you laminate them or any other picture of feet, use a hot glue gun to secure rug gripper to the back of the page. A roll of rug gripper is \$1 at the dollar store. One roll covers about 7 pieces of regular sized paper. Once that rug gripper is on there, the laminated sheets are not sliding on the floor (just like a poly spot). Practice jumping, hopping or walking from one page to the next.

In addition, the possibilities are endless to combine movement with learning. Print out sight words, vocabulary words, letters, colors, numbers, etc and get moving.



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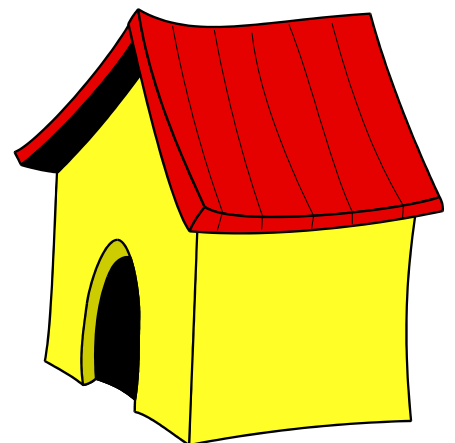
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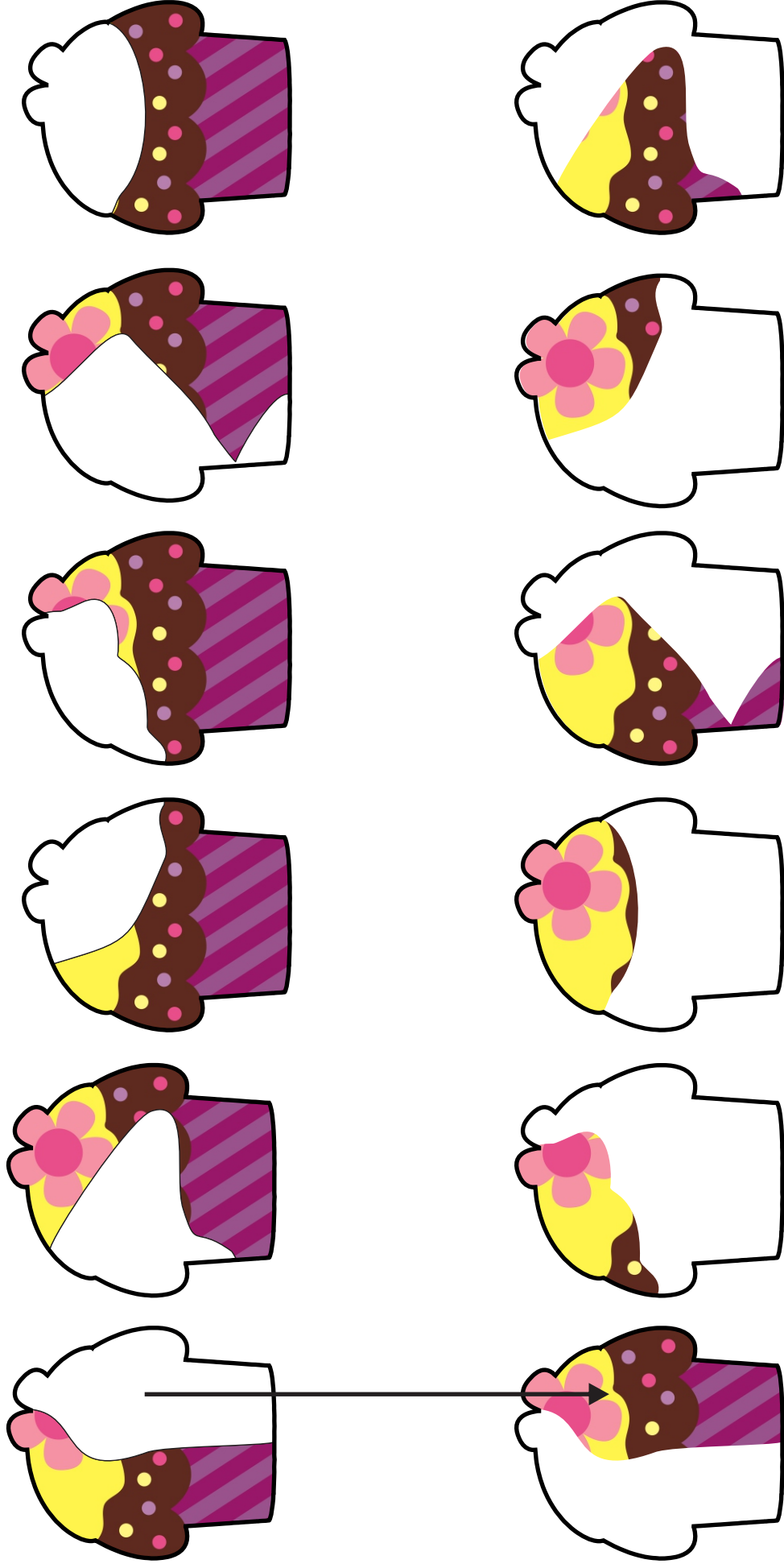


Directions: Start with your pencil tip on the dog at the bottom. Close your eyes and try to draw a line that ends at the dog house. If you did it, move up to the next dog and try again. Keep going up until you reach the top dog.



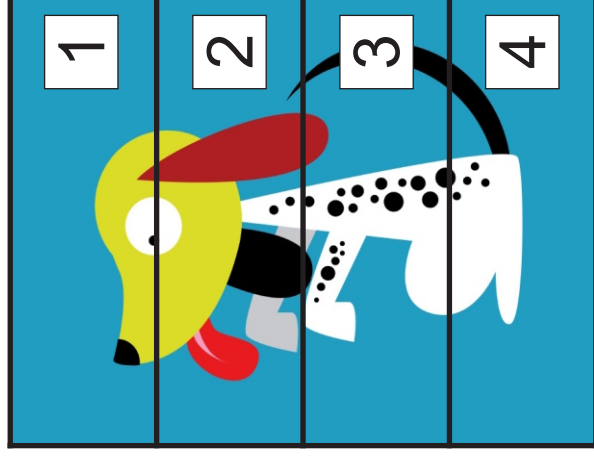
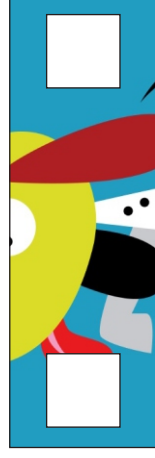
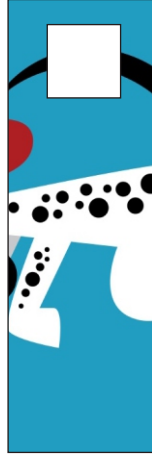
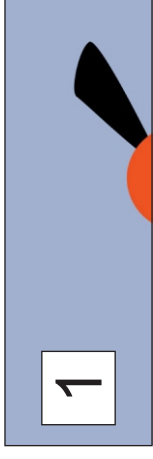
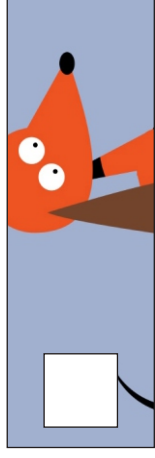
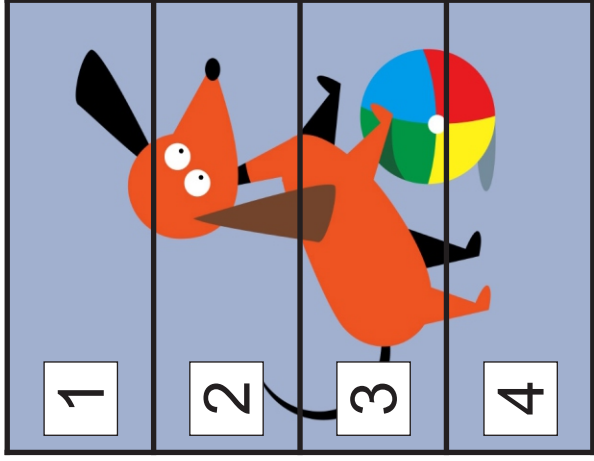
Spring Cupcakes

Directions: Draw a line to the correct missing "bite" of the cupcake.

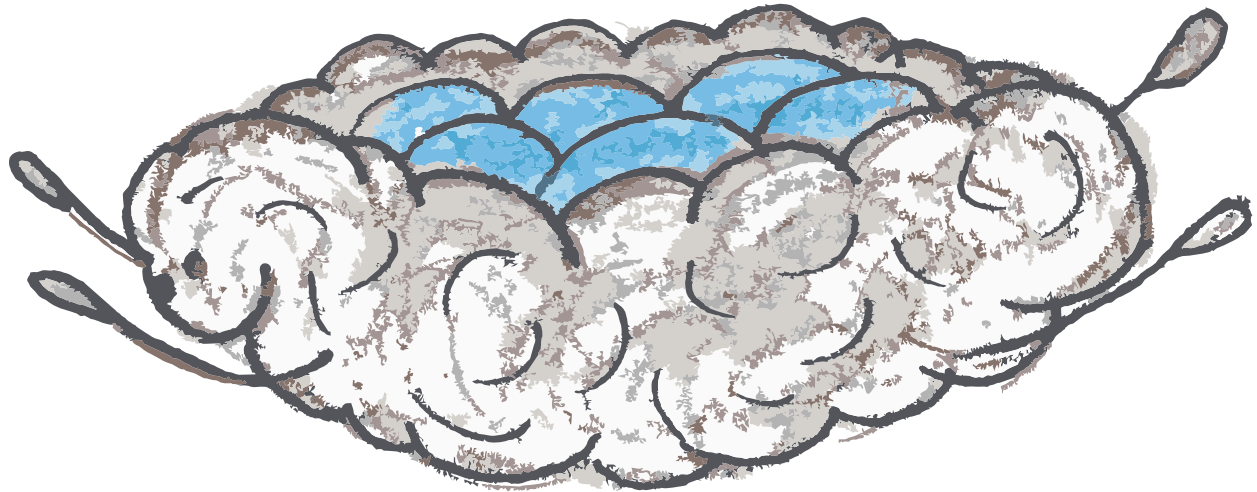


Visit www.YourTherapySource.com/puzzlepaper for the complete download.

Directions: Write the correct number on the matching piece.



Bird's Nest Pose

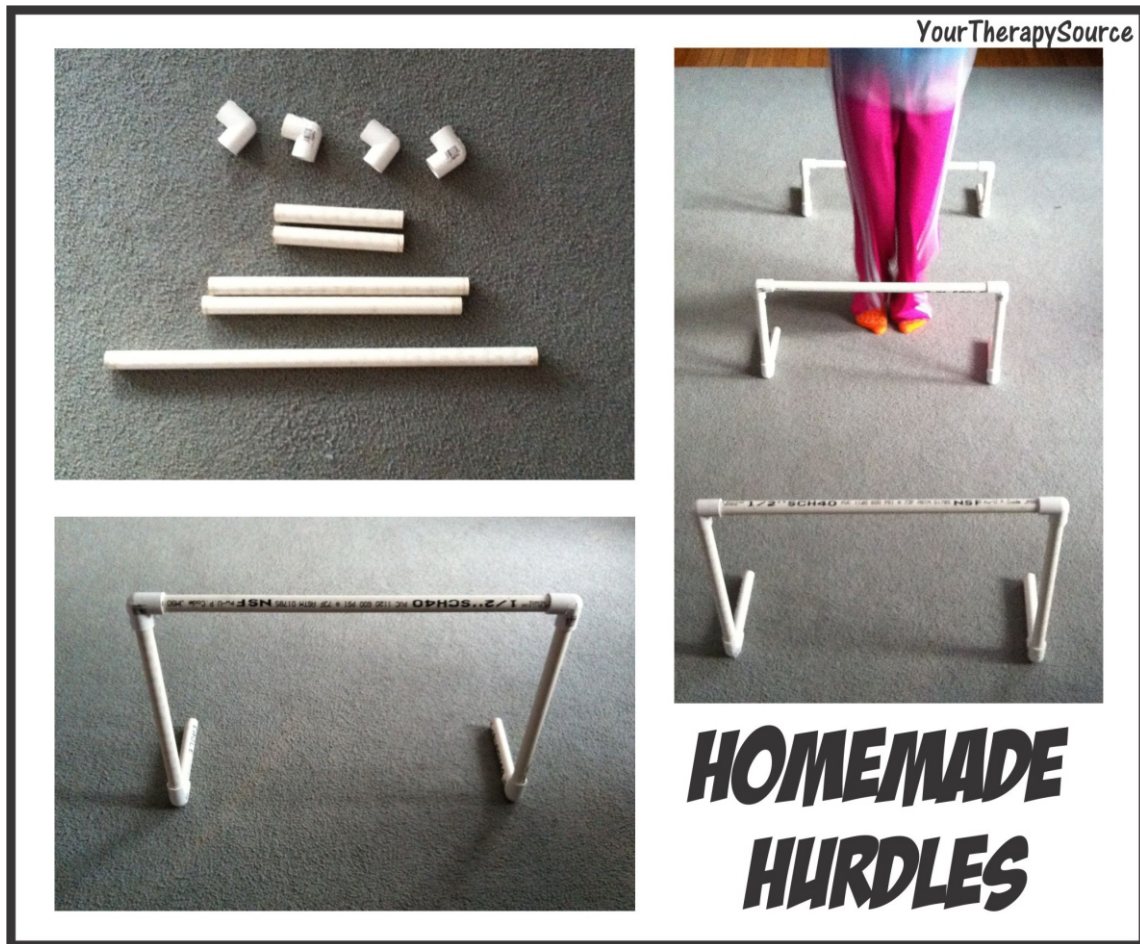


Lie on your stomach on the floor.

Hold your arms up, keeping elbows straight and hold your legs up, keeping knees straight. Hold for 10 seconds. Rest and repeat.

Optional: If you are able, lie on your stomach, reach your hands behind you and grab your feet or ankles. Look up at the sky creating a “nest” with your body.

Homemade Hurdles



Make your own hurdles of different heights to practice jumping, balance and motor planning skills. You will need 4 PVC corner pipes, two 6" pipes, one 15" pipe and two equal pipes in height (depending upon how tall you want the hurdle). In total to make the three hurdles and the plus sign pipe it cost me only \$8.

You can glue the pvc pipes together but I left them unglued in order to create different heights or to let the children create the hurdles themselves. The children can create different obstacle courses with the pipes and hurdles.

The tallest hurdle I made was 12" tall and it required two 6" inch pipes to level it. If you make it any taller you will need longer pipes to level the hurdle.

To modify this activity you can have smaller children practice stepping over the hurdles and crawling under the taller hurdles. Watch the video at <http://yourtherapysource.com/videohurdles.html> for more details and activity ideas.

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