

# SENSORY LITERACY

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## **Authors' Note**

The world around you is full of sights, sounds, smells, tastes, and touches. These sensory experiences bombard you every minute of every day. Although it is encased in darkness and silence, your brain is responsible for making sense of all of this information.





This booklet highlights books and toys that can help children explore their sensory processing capabilities, sensitivities, and preferences through play. We have compiled a list of sensory literacy and play resources available at the BU Toy Library. Resources include books and toys specific to vision, audition, olfaction, gustation, tactile sensation, proprioception, and the vestibular sense.

The resources profiled in this booklet were purchased with funds from a Teaching and Learning Enhancement (TALE) Center Teacher-Scholar Award presented to Dr. Mary Katherine Duncan (Department of Psychology). Because some of these resources are rather pricey, Laurie Ganey (with support from fellow psychology majors, Ashlie Hess and Emily Haines) has identified and described a collection of similar Do-It-Yourself resources that can be fashioned in little time and at a nominal cost.




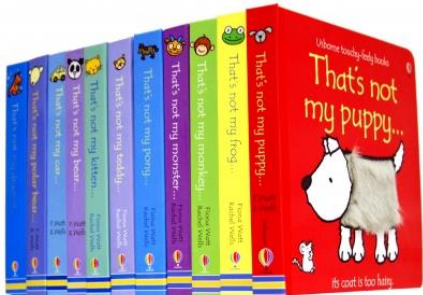
## VISUAL RESOURCES AT THE TOY LIBRARY

Resource	Picture	Description
<b>Perplexus</b>		<ul style="list-style-type: none"> <li>Keep your eye on the ball as it moves through several feet of track and dozens of challenging barriers.</li> </ul>
<b>Image Captors</b>		<ul style="list-style-type: none"> <li>Make an impression of your fingers, face, or anything else that can fit under the pins to create fascinating visual patterns.</li> </ul>
<b>Observation Tubes</b>		<ul style="list-style-type: none"> <li>Watch the colored liquid drops make their way down to the bottom of these tubes.</li> </ul>
<b>Photicular Books</b>		<ul style="list-style-type: none"> <li>Seeing is believing! Scanimation allows images to move across a page as though you were watching a film. Check out the BU Toy Library's collection of photicular books.</li> </ul>
<b>Find It Games and I SPY Books</b>		<ul style="list-style-type: none"> <li>I see it! Look closely as you hunt for hidden 3D objects in recycled plastic beads or hidden 2D objects in two-page spreads. Check out the BU Toy Library's collection of I-Spy books and Find It Games.</li> </ul>





## “Do-It-Yourself” Visual Projects

Resource	Picture	Materials	Instructions
<b>Maze</b>		<ul style="list-style-type: none"> <li>• Straws</li> <li>• Shoe box</li> <li>• Scissors</li> <li>• Tape</li> <li>• Glue</li> <li>• Marble</li> </ul>	<ul style="list-style-type: none"> <li>• Cut straw pieces and glue them to the bottom of the shoe box to create a maze. Make sure the spaces between the straws are large enough for a marble to travel through the entire maze.</li> <li>• Extension activity: Paint or color bottom and sides of box.</li> </ul>
<b>Image captors</b>		<ul style="list-style-type: none"> <li>• Play-Doh</li> <li>• Assortment of small, solid toys and figures</li> </ul>	<ul style="list-style-type: none"> <li>• Find objects around home to press into Play-Doh or use your fingers and toes to make neat visual patterns!</li> </ul>
<b>Lava Lamp</b>		<ul style="list-style-type: none"> <li>• Cooking oil</li> <li>• Water</li> <li>• Food coloring</li> <li>• Empty water bottle</li> <li>• Alka-Seltzer tablets</li> </ul>	<ul style="list-style-type: none"> <li>• Plop! Plop! Fizz! Fizz! Oh what a sight this is! Fill bottle 2/3 full with oil and the rest of the way with water, leaving about an inch free at the top. Add several drops of food coloring. Break an Alka-Seltzer tablet into three or four pieces. Drop one piece in the bottle at a time.</li> </ul>
<b>I- Spy Word Bag</b>		<ul style="list-style-type: none"> <li>• Ziploc Bag</li> <li>• Construction paper</li> <li>• Marker</li> <li>• Rice</li> </ul>	<ul style="list-style-type: none"> <li>• On 2” strips of paper, write words from an age-appropriate reading list. Pour dried rice into a gallon Ziploc bag so words are hidden. Ask child to find one word at a time.</li> </ul>

## TACTILE RESOURCES AT THE TOY LIBRARY



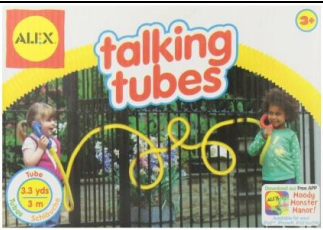

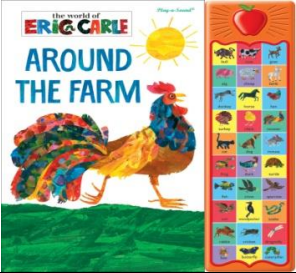
Resource	Picture	Description
<b>3-D Feel and Find</b>		<ul style="list-style-type: none"> <li>Can you feel it? Line up one or more wooden templates on the table or floor. Leave the colored wooden shapes in the bag and out of sight. Without peeking, reach into the bag to find the shape that matches each wooden template.</li> </ul>
<b>Teachable Touchables Texture Squares</b>		<ul style="list-style-type: none"> <li>Do you feel what I feel? Learn the names of different textures with 20 textured squares (ten different pairs). This resource also includes an instruction sheet packed with fun activities.</li> </ul>
<b>Kinetic Sand</b>		<ul style="list-style-type: none"> <li>Unlike ordinary sand, this sand moves! It is non-toxic and gluten-free. Run kinetic sand through your fingers or build structures without making a mess. There is no fluid and no place for bacteria to grow</li> </ul>
<b><i>That's Not My...</i> book series</b>		<ul style="list-style-type: none"> <li>This book series is designed to develop sensory and language awareness with bright pictures and patches of different textures. Check out the BU Toy Library's collection of the <i>That's Not My...</i> book series by Usborne.</li> </ul>

## “Do-It-Yourself” Tactile Projects

Resource	Picture	Materials	Instructions
Guess what?		<ul style="list-style-type: none"> <li>• Shoebox</li> <li>• Construction paper</li> <li>• Collection of small objects</li> </ul>	<ul style="list-style-type: none"> <li>• Cut a hole in the side of a shoe box big enough for your hand to fit. Tape a piece of paper over the hole and make vertical cuts in the paper. Make sure you can't see what is inside. Have someone place different shaped and textured objects in box. See if you can guess what they are.</li> </ul>
Textured Glue Art		<ul style="list-style-type: none"> <li>• Craft glue</li> <li>• Construction paper</li> <li>• Textured materials</li> </ul>	<ul style="list-style-type: none"> <li>• Use glue to create patterns on construction paper or foam board. While glue is wet, add materials to produce different textures (sprinkles, sand, fuzz, glitter, salt). Once dry, trace designs with your fingers.</li> </ul>
Moon Sand		<ul style="list-style-type: none"> <li>• 9 cups flour</li> <li>• 1 1/4 cup baby oil</li> <li>• Mixing bowl</li> </ul>	<ul style="list-style-type: none"> <li>• Mix flour and baby oil in a bowl.</li> <li>• <i>To add color</i>, split flour into thirds. Add 1/8 cup powdered tempera to each third. Mix well. Add oil.</li> <li>• <i>To add smell</i>, split the moon sand into thirds. Add 1/8 of a cup of cocoa powder to make it smell like chocolate. Or add food flavoring extracts.</li> </ul>
Make Your Own Book of Textures		<ul style="list-style-type: none"> <li>• Construction paper</li> <li>• Pencil or crayons</li> <li>• Glue</li> <li>• Textured materials (felt, cotton, sand, pom-poms, ribbon, foil, saran wrap)</li> </ul>	<ul style="list-style-type: none"> <li>• On separate sheets of paper, draw simple pictures. Embellish your pictures with textured materials. Bind book using a stapler or a hole punch and ribbon.</li> </ul>

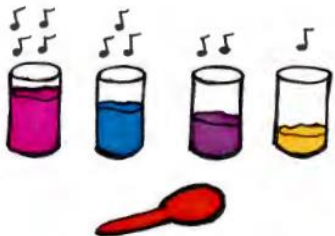





## AUDITORY RESOURCES AT THE TOY LIBRARY





Resource	Picture	Description
Metronome		<ul style="list-style-type: none"> <li>Produces regular, metrical ticks to keep the beat when playing instruments, singing, reading, or talking.</li> </ul>
Instruments		<ul style="list-style-type: none"> <li>The Bookwhackers' chroma-notes colors make it easy to play color-coded songs in the songbook. The set also includes a DVD of games and lessons. Check out the BU Toy Library's large selection of instruments.</li> </ul>
Talking Tubes		<ul style="list-style-type: none"> <li>Over 3 yards of flexible tubing and 2 handsets to talk through.</li> </ul>
And Then...		<ul style="list-style-type: none"> <li>Listen carefully as each of the cards in this box starts a story that children will want to finish.</li> </ul>
Sound books		<ul style="list-style-type: none"> <li>Sound books teach children to connect sounds with people, places, things, feelings, and concepts. Check out the BU Toy Library's collection of sound and onomatopoeia books.</li> </ul>





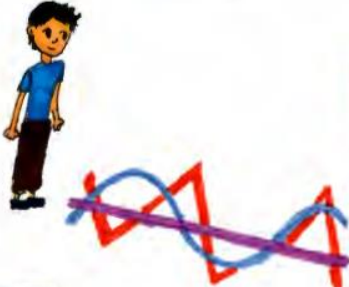

## “Do-It-Yourself” Auditory Projects

Resource	Picture	Materials	Instructions
<b>Water Xylophone</b>		<ul style="list-style-type: none"> <li>• Glass bottles or mason jars</li> <li>• Water</li> <li>• Food coloring</li> <li>• Stick</li> </ul>	<ul style="list-style-type: none"> <li>• Fill the bottles with different levels of water. Add food coloring to each bottle. Use a stick to tap the glass bottles to make noise. Try to put together “notes” to play a song.</li> </ul>
<b>Rain Stick</b>		<ul style="list-style-type: none"> <li>• Cardboard tube about 3.5-5 ft.</li> <li>• Bag of nails (not longer than diameter of tube)</li> <li>• Dried beans</li> <li>• Duct tape</li> </ul>	<ul style="list-style-type: none"> <li>• Following the spiral crease of the tube, push in the nails from one end of the tube to the other just above or below the spiral crease. Seal off one end of the tube. Pour 1/2 lb of beans into the tube. Seal off the other end of the tube. Decorate the outside with duct tape, paper, or stickers.</li> </ul>
<b>Egg Shakers</b>		<ul style="list-style-type: none"> <li>• Plastic eggs</li> <li>• Dried grains (rice, beans, macaroni noodles, popcorn kernels)</li> </ul>	<ul style="list-style-type: none"> <li>• Fill half of each egg with 1-2 tablespoons of dried grains or other materials. Close the egg and shake your home made musical instruments.</li> </ul>
<b>Telephone</b>		<ul style="list-style-type: none"> <li>• Three or more empty paper towel rolls</li> <li>• Duct tape</li> <li>• 2 rubber bands</li> <li>• 2 soft cloths</li> </ul>	<ul style="list-style-type: none"> <li>• Tape empty paper towel rolls together. Rubber band soft cloths over each end of long paper towel tube. Take turns speaking through one end while someone else listens at the other end.</li> </ul>






## VESTIBULAR RESOURCES AT THE TOY LIBRARY

Resource	Picture	Description
<b>Rotation Board</b>		<ul style="list-style-type: none"> <li>Sit on the Rotation Board, hold on to the handles, and move your body gently to let the board rotate and dip.</li> </ul>
<b>Rainbow River Stones</b>		<ul style="list-style-type: none"> <li>Tread lightly as you balance your way across three different sizes and textures of river stones.</li> </ul>
<b>Labyrinth Balance Board</b>		<ul style="list-style-type: none"> <li>Balance and shift your weight to make the balls go around the maze.</li> </ul>
<b>Chalk City Obstacle Course Stencils</b>		<ul style="list-style-type: none"> <li>Ready. Set. Go! Maneuver through an obstacle course of your own design. Hop on one foot or two feet. Spin around. Jump up and down. Take it fast or slow. Move through the obstacle course forward, backward, sideways, on your tiptoes, or on your heels. Then, change it up and start all over again.</li> </ul>


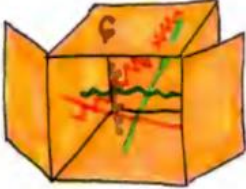


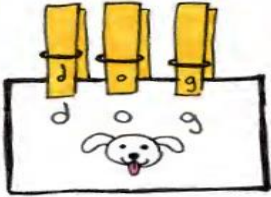
## “Do-It-Yourself” Vestibular Projects

Resource	Picture	Materials	Instructions
<b>Kid’s Activity Cube</b>		<ul style="list-style-type: none"> <li>• White cardstock</li> <li>• Tape</li> <li>• Markers</li> </ul>	<ul style="list-style-type: none"> <li>• Make a cube and write different physical actions on each side. Roll the cube and act out the action on the side of the cube that faces up.</li> </ul>
<b>Textured Trails</b>		<ul style="list-style-type: none"> <li>• Paper (for trail)</li> <li>• Textures (felt, Styrofoam, bubble wrap, feathers, pom-poms, Play-Doh, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Follow the trail! Set up paper to make a path to follow. Glue or place textured sensory materials on the paper. When the path is dry, follow it with your eyes open or closed.</li> </ul>
<b>Walk the Line</b>		<ul style="list-style-type: none"> <li>• Three rolls of tape of different colors</li> <li>• Large floor space</li> </ul>	<ul style="list-style-type: none"> <li>• Make a blue zigzag line, a red curvy line, and a straight green line. Start by following the lines with one foot in front of the other. Then, follow the lines facing sideways and backwards.</li> </ul>
<b>Penguin Waddle Race</b>		<ul style="list-style-type: none"> <li>• Two balls or balloons</li> <li>• Large floor space</li> </ul>	<ul style="list-style-type: none"> <li>• Race with the ball or balloon between your legs.</li> </ul>





## PROPRIOCEPTIVE RESOURCES AT THE TOY LIBRARY

Resource	Picture	Description
<b>Weighted Lap Pad</b>		<ul style="list-style-type: none"> <li>Weighted lap pads provide proprioceptive feedback and a sense of stability.</li> </ul>
<b>Lacing and Zipper Activities</b>		<ul style="list-style-type: none"> <li>Practice lacing skills and coordinating muscle movements by lacing and zipping. Check out the BU Toy Library's collection of shoe lacing activities and cards.</li> </ul>
<b>Multicolored Parachute</b>		<ul style="list-style-type: none"> <li>You will have fun playing with the parachute while developing movement awareness, balance, coordination, flexibility and agility.</li> </ul>
<b>Launch Board</b>		<ul style="list-style-type: none"> <li>Improve your hand-eye coordination by placing a beanbag on one end of the inclined plane and stomping on the other end. The beanbag sails in the air for you to catch.</li> </ul>
<b>Design and Drill</b>		<ul style="list-style-type: none"> <li>This resource features 20 activity cards with creative design ideas. It includes plastic bolts, a reversible power drill, a screwdriver, 3 drill bits, a combination wrench, and activity board.</li> </ul>

## “Do-It-Yourself” Proprioception Projects

Resource	Picture	Materials	Instructions
<b>Weighted Snake</b>		<ul style="list-style-type: none"> <li>• Approximately 3 feet x 1 foot of fabric</li> <li>• Sewing string</li> <li>• Needle</li> </ul>	<ul style="list-style-type: none"> <li>• Fold over fabric length-wise and sew closed one short end and the long end. Fill with 6 pounds of rice before sewing the final short end closed.</li> </ul>
<b>Tugging Box</b>		<ul style="list-style-type: none"> <li>• Empty box</li> <li>• Knife to cut holes</li> <li>• Various ribbons</li> </ul>	<ul style="list-style-type: none"> <li>• Thread each ribbon through two holes in the boxes so that when the child pulls on one end, they will see it move from one hole to the other.</li> </ul>
<b>Shoe Box Lacing Activity</b>		<ul style="list-style-type: none"> <li>• Empty tissue box</li> <li>• Hole puncher</li> <li>• Shoelace or string of any kind</li> </ul>	<ul style="list-style-type: none"> <li>• Practice shoe tying!</li> </ul>
<b>Feed the Monster</b>		<ul style="list-style-type: none"> <li>• Empty container of baby wipes</li> <li>• Glue</li> <li>• Tongs or chopsticks</li> <li>• Buttons, pom-poms</li> </ul>	<ul style="list-style-type: none"> <li>• Decorate the container of wipes to look like a monster or other animal. Begin by using fingers to feed the monster. Then, try feeding the monster with tongs, tweezers, and chopsticks.</li> </ul>
<b>Clothespin Words</b>		<ul style="list-style-type: none"> <li>• Flash cards</li> <li>• Markers</li> <li>• Clothespins</li> </ul>	<ul style="list-style-type: none"> <li>• Write words on flashcards and letters on clothespins. Spread the clothespins on the floor. Find and attach the letters to spell each word on the cards.</li> </ul>

## “Do-It-Yourself” Olfactory and Gustatory Projects

Resource	Picture	Materials	Instructions
<b>Smelling Jars</b>		<ul style="list-style-type: none"> <li>• Empty bottles</li> <li>• Cotton balls</li> <li>• Scented oils or extracts</li> </ul>	<ul style="list-style-type: none"> <li>• Fill each bottle with cotton balls. Sparingly add one extract per bottle. Have children describe and guess the scents.</li> </ul>
<b>Scratch and Sniff Pads</b>		<ul style="list-style-type: none"> <li>• Kool-Aid packets</li> <li>• Containers</li> <li>• Water</li> <li>• Construction paper</li> </ul>	<ul style="list-style-type: none"> <li>• Dilute packets of Kool-Aid in different containers. Use these mixtures to paint designs or dots on paper. Once it dries, the child can scratch and sniff the different smells.</li> </ul>
<b>Rainbow Yogurt Pops</b>		<ul style="list-style-type: none"> <li>• Flavored yogurt</li> <li>• Paper cups</li> <li>• Popsicle sticks</li> </ul>	<ul style="list-style-type: none"> <li>• Spoon different yogurts into cups in smooth and even layers. Insert Popsicle stick into each cup of yogurt. Freeze.</li> </ul>
<b>Blind Tasting</b>		<ul style="list-style-type: none"> <li>• Fruit</li> <li>• Blindfold (optional)</li> </ul>	<ul style="list-style-type: none"> <li>• On a plate, place a few different types of fruit. Cover or close your eyes and taste each fruit. Can you guess the flavor?</li> </ul>



We all have different sensory processing capabilities, sensitivities, and preferences. Read through the chart below to learn more about your own sensory processing tendencies.

Visual Processing	
Low Sensitivity	High Sensitivity
___ Do you write on a slant or have trouble spacing your letters? Is it hard for you to find items among other items such as a pen in a drawer of art supplies?	___ Do you have difficulty keeping your eyes focused on something to finish a task? Are you easily distracted by other things to look at such as movements or decorations?
Tactile Processing	
Low Sensitivity	High Sensitivity
___ Are you often not bothered by injuries, like cuts and bruises? Do you enjoy messy play? Do you like to touch soothing objects such as soft fabrics or smooth rocks?	___ Do you avoid messy play? Are you bothered by the feel of certain clothes? Does a raindrop or wind blowing on your skin bother you?
Auditory Processing	
Low Sensitivity	High Sensitivity
___ Do you usually talk out loud to yourself? Do you have trouble locating the source of a sound?	___ Are you easily startled by loud sounds? Do you often ask (or want to ask) people to stop making noise?
Vestibular Processing	
Low Sensitivity	High Sensitivity
___ Do you have difficulty sitting still? Do you like sudden or quick movements?	___ Do you move slowly and cautiously? Do you lose balance easily or appear clumsy sometimes?
Proprioceptive Processing	
Low Sensitivity	High Sensitivity
___ Do you tend to write too lightly to see or so hard that the tip of your pencil breaks? If you hold an object in each hand, is it hard for you to tell which one weighs more?	___ Do you often chew on pens or straws? Do you like to be wrapped in blankets? Do you prefer clothes, belts, or shoelaces to be as tight as possible?
Olfactory and Gustatory Processing	
Low Sensitivity	High Sensitivity
___ Do you have trouble identifying smells or fail to notice odors that others complain about? Do you prefer foods with intense flavor?	___ Are you often bothered by smells that other people don't notice? Do you avoid spicy, sweet, or salty foods? Do foods with different textures bother you?



