# Let's See

# Vision Development Sensory Activities

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Sensory Activities Book



#### NOTICE

The pages within this book contain print on one side only to allow adequate space for the writing of your own activities on the back of each page.

Substitute items may be included in your kit due to the occasional unavailability of commercial items. Such items have been selected to serve a similar function.

None of the items in your kit were designed for use by unattended children. Children should always be supervised by an adult when using the items in your kit.

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# Vision Development Sensory Activities

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#### INTRODUCTION

The need for materials to stimulate residual vision in young multihandicapped students has been repeatedly voiced by consumers. The *Let's See* materials have been developed to respond to this specific need.

A variety of materials, adapted commercial items, APH-developed prototypes and fluorescent materials were tested by teachers with visually impaired students functioning at birth-5 years. Even though the teacher-evaluators had the most success eliciting visual responses with the fluorescent items, our project development activities, include daylight activities. Research shows that children who learn under black light are easily weaned to do the same activities in daylight or with flashlight. Materials were deleted from or added to the kit, or were revised according to the cumulative research and the recommendations of 30 teachers using the materials with some 125 students. The *Let's See* materials are a result of these efforts.

The materials consist of 26 tangible child-use items and two activity books. Much of the content of the activity books can be used independently of the fluorescent materials in designing a vision development program for preacademic level students. The activity book should be thoroughly reviewed before initiating use of the training items. The tangible items are divided into two categories: sensory and perceptual. The sensory level materials are designed to be used in eliciting initial visual interest, attention, and localization skills. The perceptual level materials are useful in developing visual-perceptual and visual-discrimination behaviors.

#### **ACKNOWLEDGMENTS**

Over the past several years, many people have been involved in the development of the *Low Vision Stimulation and Training Kit*, which resulted in the product *Bright Sights*. Now, the developers of *Let's See* would like to thank the dozens of administrators, teachers, paraprofessionals, parents and children all over the United States who participated in the field testing.

A special thanks goes to Christine Pitzer, who evaluated and updated the activities from the old *Bright Sights*. Another special thank you goes to Judy Cernkovich for her helpful suggestions.

Thanks also to Sheri Moore for her efforts in compiling the original *Bright Sights* materials, to Kristopher Scott for sharing his excellent editing skills, to Loretta Curry for her skill in desktop publishing and to Frank Hayden for his expertise and unfailing, good advice.

### **BLACK LIGHT WARNING:**

by Elaine Kitchel, (1998)

The new Let's See: Vision Development Activities Kit may be effectively used with ordinary light, flashlight or flashlight with colored spot filters. Many people prefer to use it with black light lamps, which produce ultraviolet-A and blue light. Under black light tubes, most of the elements of the new Let's See: Vision Development Activities will fluoresce. This fluorescence is seen by many practitioners to be desirable and valuable in establishing visual attending in young children. It is important to note however:

Light emitted from blacklight sources can be hazardous to the visual systems of both child and practitioner. Caution should be exercised. Lenses of protective eyewear which have both ultraviolet-blocking and blue-blocking qualities should be worn by both child and practitioner if these materials are used in the presence of blacklight.

Blue light, that part of the visible spectrum which ranges from 381 to 500 NM, makes up half of the light emitted from blacklight tubes. The other half is UV-A light. Even experts differ as to the exact wavelength of UV-A light waves. Generally speaking, however, UV-A light is defined as that part of the spectrum which is 315-380 NM.) Objects fluoresce mainly in the blue light range. However, until recently, little had been offered in the way of information about how blue light, and UV-A affect the eye structures of children.

A recent increase in the number of practitioners engaging in black light activities has brought about high levels of exposure to UV-A and blue light for a significant number of children. Why is that a problem? Recent research in cellular biology has shown that exposure to the UV-A and blue light waves emitted by blacklight tubes can have long term negative effects on the visual systems of persons exposed to it (Fedorovich, I. B., Zak, P. P., & Ostrovskii, M. A., 1994). The natural yellowing which occurs with aging offers adults some protection, however inadequate. Children are especially vulnerable because their lenses have not yet yellowed.

What is it about UV-A and blue light which make them hazardous? Tests done by Drs. Ham and Chen show that when UV-A and blue light strike the retina the light waves inhibit the formation of a chemical called cytochrome oxidase. This chemical is an important part of retinal cells because it transports oxygen to photoreceptor and other retinal cells. Without cytochrome oxidase, the cells become deprived of oxygen and eventually die. When enough cells die, retinal degeneration occurs (Chen, E., 1993; Ham, W. T., Jr. 1983). Blue light damage is cumulative and may go unnoticed for many years. (Pautler, E. L., Morita, M., & Beezley, D., 1989).

Protection against UV-A and blue light damage is simple. Yellow polycarbonate lenses offer complete protection, in most cases, against the potential hazards of both. The protective UltraLens, UltraLens Jr., UltraLens Infant and UltraLens Jr. clip-on are included in the kit. They are also sold separately from American Printing House for the Blind. Objects will still appear to fluoresce if viewed through these special yellow polycarbonate filters.

# If you decide to use the new Let's See: Vision Development Activities Kit with a blacklight:

- 1. Make sure child and practitioner always wear UV and blueblocking eyewear.
- 2. Keep training sessions short. Any suggested guideline is guesswork. However, it is safe to say that the shorter the session, the safer.
- 3. Position the black light so the child is not able to look directly at the exposed fluorescent tube. Placing the lamp above and behind the child is best. Black lights should always be fitted with a shade or a hood.
- 4. When you use a fluorescent tube, either black light or regular daylight tube, examine it for flickering to guard against seizure activity in a seizure-prone child.
- 5. Eventually, wean the child from the black light by trying the same activities under normal lighting conditions.
- 6. Persons who take photosensitizing medications, who have albinism or are otherwise very fair-skinned, need to protect their skin by wearing long-sleeved clothing and using sunblocking creams on exposed skin when participating in black light activities.

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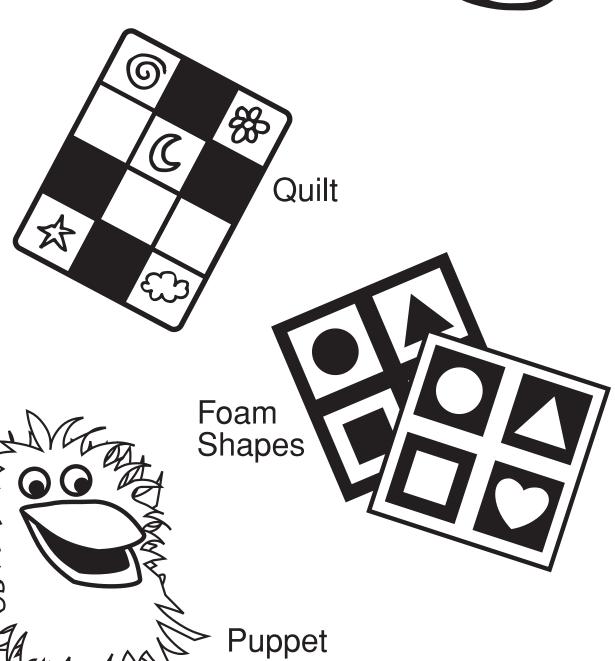
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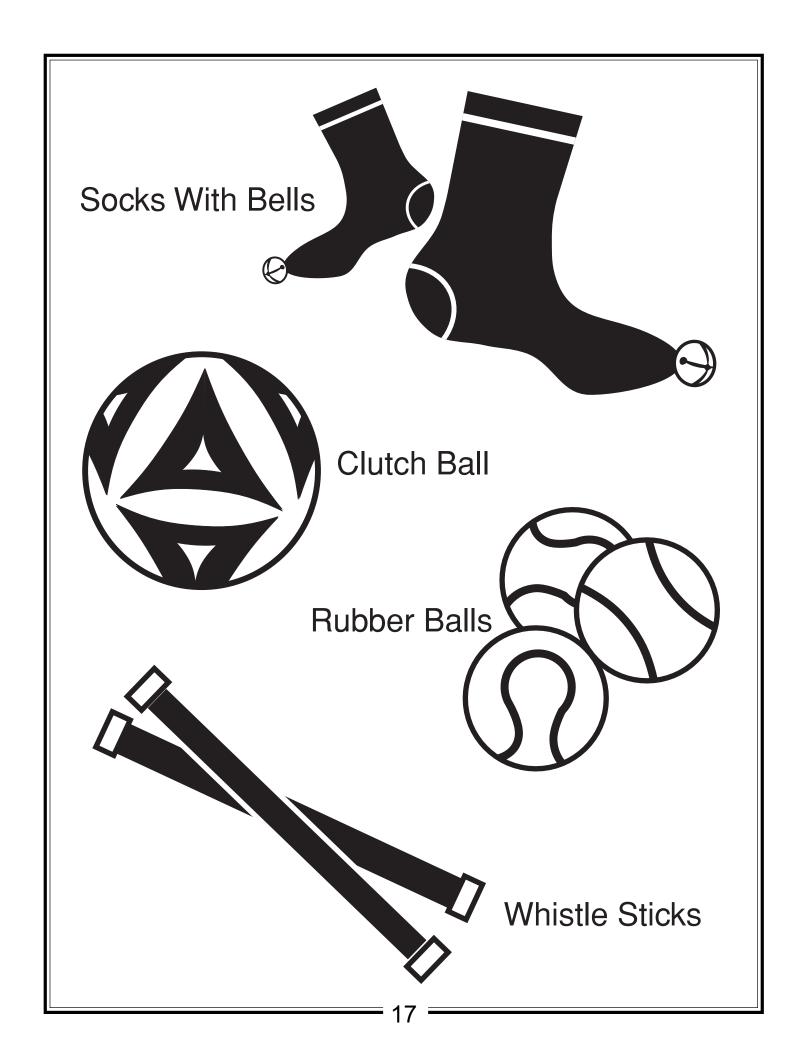
# Kit Items - Sensory Level

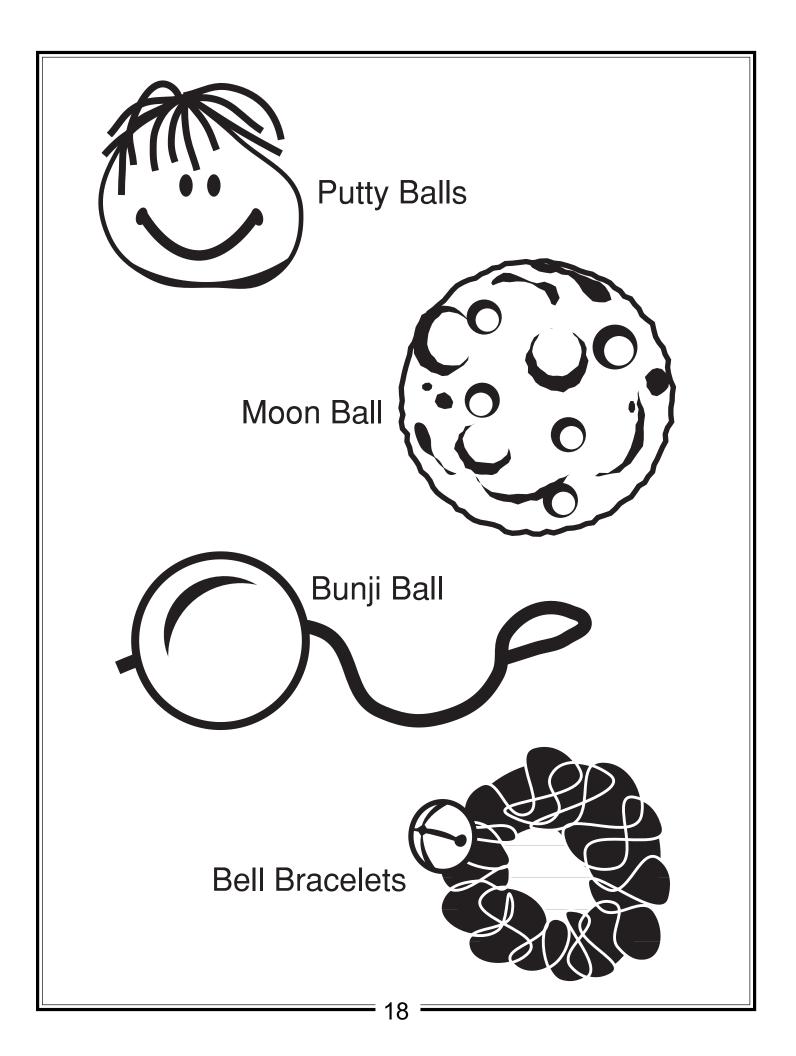
Ultra Lens Ultra Lens, Infant Ultra Lens, Jr. Ultra Lens, Clip-On

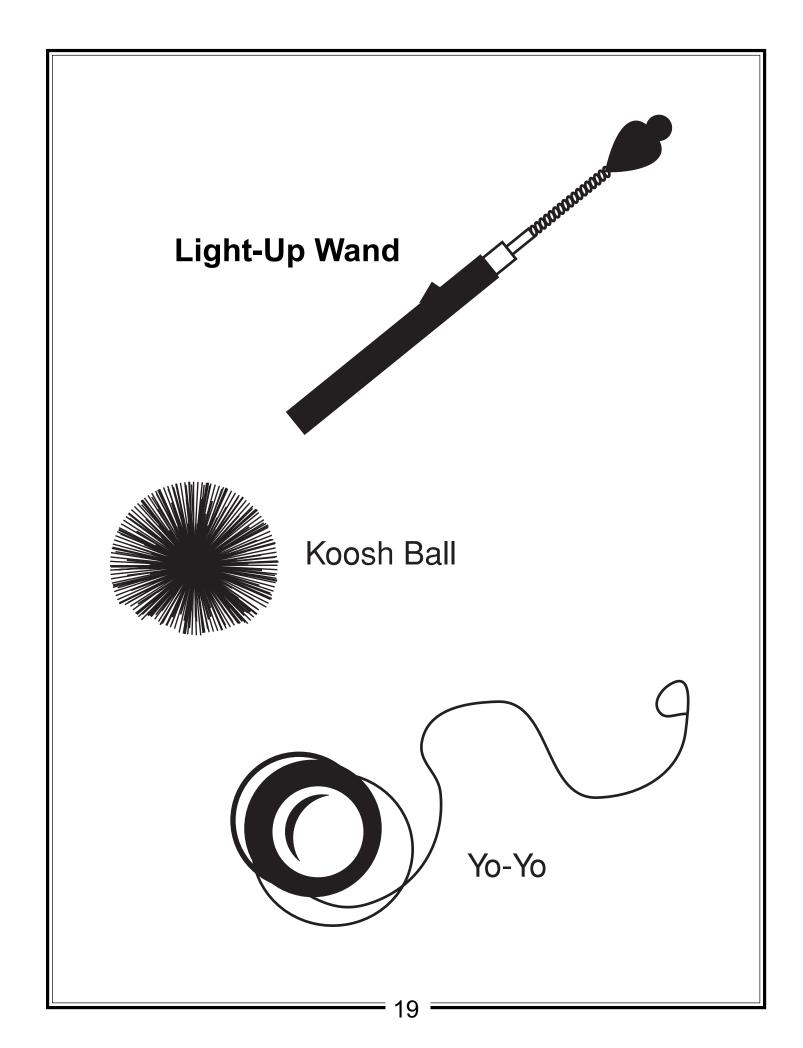




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# **WARNING:**



ULTRA LENS, INFANT ULTRA LENS, JR. ULTRA LENS, CLIP-ON

The Ultra Lens products are included in this kit to protect both the practitioner and the student from the potential hazards of ultraviolet A and blue light, which are abundant in the light emitted from blacklight tubes and bulbs. Please read the warning on pages 11-15. The practitioner should **ALWAYS** wear the Ultra Lens adult while performing vision development activities with a blacklight. Please make sure that **ALL** children and adults exposed to the light are wearing the Ultra Lenses which are the correct sizes for them.



NOTE:

The quilt is reversible as well as machine washable. Use the black/white side of the quilt with any kit item to provide good background contrast.

- Place the child on his stomach on the quilt with his upper truck supported by a pillow, bolster or rolled towel. Use this position to encourage head and trunk control while bringing hands together at midline. Present a variety of kit items to the child when in this position, such as the light-up wand.
- 2. Use the black-and-white side of the quilt. First, place some toys on a contrasting color patches, note the child's preference. Turn quilt over and repeat your initial sequence. Give objects to the child. Have him place them on black squares.
- 3. Throw an object on the quilt or have the child do it, then have the child retrieve the item.

- 4. Place items on the quilt for children to swipe at, stack up or knock down. Practice knocking down stacks. Show the child the cause-and-effect relationship.
- 5. Place the quilt on the floor and pull a yo-yo or ball on a string across it to encourage the child to follow. Allow the child to pull the item across the quilt. He may want to call out the colors of the squares as the item crosses them.



- 1. Hang shapes over crib or from ceiling and use as a mobile.
- 2. Place several shapes around the child or on his body while encouraging him to locate and reach for the shapes.
- 3. Attach a string to a foam shape and pull it across the floor slowly in front of the child to stimulate attending and tracking.
- 4. Allow the child to practice visual motor skills by taking each shape, grasping it and releasing it into the pail or other container.
- 5. Position foam shapes on left side of the child and hold his left hand, forcing him to use his right hand to reach for and cross midline to pick up items off the quilt. Have him put them into the bucket located on the child's left side. Repeat this activity, using the right side for the items and his left

hand to reach for the items.

- 6. Use the foam shapes and their frame as a puzzle. Mix the colors of the shapes and borders.
- 7. Use the shapes as little stepping stones. Allow the child to use his fingers as little legs to step from one to another. Direct his path as in, "Now step on the triangle."
- 8. Sing "Skip to My Lou" and allow the child to skip his fingers along the little path in item #7.



## **PUPPET**

- With a puppet on your hand, move it through the child's visual field from left to right, then right to left, to encourage tracking. If the child has difficulty, wear the bell bracelet around your wrist. Later, when the child is tracking well, withdraw the auditory cue.
- 2. Place puppet on the whistle stick. Note whether she visually attends to the puppet. Encourage tracking by moving the whistle stick back and forth. Try this again while the puppet holds the flexible shaft penlight.
- 3. With puppet on your hand, touch and name appropriate body parts of the child.
- 4. Place the puppet on your hand and have the child reach for it. The child may initially need an auditory cue paired with the puppet. If so, you may use the whistle stick or bell bracelet to provide the cue.

- 5. Place a puppet on your hand with the beak closed. Fold your hand so the solid color inside the beak does not show. To gain the child's visual attention, "flash" the open beak of the puppet by opening your hand briefly. Do this in various parts of his visual field, encouraging him to localize the puppet.
- Give the child the whistle stick. Hold the puppet while the child touches the bill, head, eyes with the whistle stick as you call the names out to him.



- 1. Put the child-sized socks on the child's hands. Note whether he visually attends to them. Encourage him to shake the bells, twice, three times, etc.
- 2. With adult socks on your hands, talk to the child, wave your hands, ask the child to look at your hand, to touch it to "see how nice it feels," etc. Ask him to shake hands with you. Encourage him to play pat-a-cake with you.
- 3. With a sock on your hand, touch different, appropriate body parts of the child. Say the names of the body parts as you touch them.
- 4. Place socks on the child's feet and encourage him to reach for them. Place a sock on child's left foot. Place another sock on the right hand. Ask child to use right hand to touch foot with the sock on it (same).
- 5. Put the socks on the child's feet and encourage him to walk

and watch his feet, stepping on designated spots or a wide line. You may have him step on only the white squares of the quilt.

- With socks on both the child's hands and yours, wave or point while standing right in front of him. Have him mimic your movements.
- 7. If a child has a favored hand, put the sock on the favored hand and have him pull it off with the weaker hand. You may want to use the bell bracelet on the favored hand as well, for the color interest.



# **CLUTCH BALL**

- 1. Suspend the ball from a mobile for the child to reach for, grasp, bat and kick.
- 2. Tie a string to the ball and swing it slowly in front of the child for tracking. Try to get him to reach for the ball or visually follow it.
- 3. Cover the ball with a cloth or quilt, first partially, then completely. Have the child find the hidden ball.
- 4. Sit the child on the floor with the ball between his legs and gently bounce the ball. Sing or hum a rhythmic tune and have him bounce the ball. Encourage and assist the child to maintain balance and body control while he manipulates the ball.
- 5. Sit on the floor with the child and pass the ball back and forth, talking as you play. Say such things as, "I'm giving the ball to you, and now you're giving the ball to me." Roll the ball to the child and have him roll it back.

- 6. Squeak the clutch ball. Have the child visually track the ball as you move it slowly across his visual field.
- 7. Squeak the ball then hide it under the bucket. Let the child find the ball. Show him how to squeak the ball.
- 8. Allow the child to touch the ball with the whistle stick and roll it gently along.
- 9. As the child rolls or bounces the ball, you or a second child may shake the streamers and shout, "Hooray!"

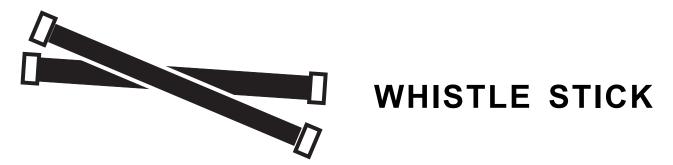


# **RUBBER BALLS**

- Help the child track a ball as you hold it, or, initially, place the ball in the child's hand and move it with your own in a horizontal plane.
- 2. Encourage the child to reach for and grasp the ball. Ask him to describe how the ball feels in his hand.
- 3. Give the ball to the child, show him the pail and help him drop the ball in the pail. Help him retrieve it.
- 4. Roll a ball to the child, both of you sitting on the floor opposite each other with legs apart. Begin with the largest ball. Encourage him to catch the ball before it bumps him.
- 5. Draw or cut out a cardboard track or roadway on which to roll the ball. Make several tracks, varying the design and complexity. An aluminum pie plate can be placed at the end for an auditory effect. Use motion sensor at end of track.
- 6. Use a motion sensor night light at the end of the roadway to

elicit a visual response for "the winner." This light could also be used at the starting line, too. A motion sensor auditory figure such as a croaking frog or chirping bird can be used for an auditory response to stimulate the visual one. A baby toy that plays music and lights up could be used. Press the button when the car or ball crosses the finish line so the child will look toward the end of the track. Have him watch for the ball or car and let <u>him</u> press the button on the toy when the ball or car goes in front of him.

7. If the child is advanced enough, have him roll one, two, or three balls to you as you call the number to him. Make sure to praise him or sing a little tune as a reward.

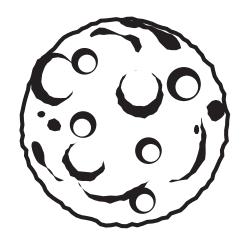


- I. Help the child become aware of the whistle stick by pairing your voice with it and touching the child with it.
- 2. Wearing the puppet, have it pick up and shake the whistle stick in different locations around the child (check for child's location response to front, back side, side, etc.).
- 3. Have the puppet hold a whistle stick and use the whistle stick to touch appropriate body parts. Ask the child to name the body parts as they are touched.
- 4. Move the whistle stick in your hand toward the child and encourage him to grasp it and shake it.
- 5. Give the child a whistle stick. Have him listen as you tip your stick slowly or rapidly. Have him imitate with his stick the patterns you make with yours.
- 6. Sing a song together. Both of you pretend you are conducting music with your whistle sticks.



# **PUTTY BALLS**

- 1. Give the child an opportunity to grasp and hold the putty balls. Their changing shape makes it easy for a child to grasp. Let her manipulate the balls.
- 2. Place the putty balls on the child's arm, leg, other appropriate body parts. Have her locate the balls and push them off.
- 3. Have the child drop the putty balls into the pail. Later, have the child retrieve each ball from the pail. You may want to use color cues
- 4. Put putty balls on various quilt squares that provide a good contrast. Have the child visually locate the putty balls and pick them up. Other kit items can also be used in the same manner as the putty balls.
- 5. Cut out a large circle from paper. Place it on the GrandStand or other stand. Have the child gently throw the putty balls at the circle. Note how many times she hits the target.
- 6. Have the child pat all the putty balls flat in front of her with faces upward. Have her count them. Ask the child to retrieve the balls one-at-a-time as you call out the color. She can then reshape them.



# **MOON BALL**

- 1. Roll the ball over the child's body. Name appropriate body parts as you touch them. Encourage him to locate the ball and reach for it. Allow him to roll, bounce, or nuzzle the ball.
- 2. Gently bump the child with the ball, then withdraw it. Before you bump him tell him what you are about to do, "I'm going to bump you!" Encourage the child to look for, reach out, and intercept the ball before it reaches him. Present the ball in different locations around the child.
- 3. Move the ball slowly across the child's visual field. If he does not visually track the ball, place it in his hand and help him move it in an arc across his field of vision. Try a variety of visual field positions. If necessary, gently direct his head to follow the motion of the ball. You may want to illuminate the ball with a flashlight or in a dim light, allow the ball to glow. (The ball is phosphorescent.)
- 4. Attach a length of elastic to the ball and hang it near the

- child for him to bounce, kick, and grasp.
- 5. Practice rolling, tossing and catching the ball. This is a good small group activity. If necessary, sit behind the child facing a wall and assist the child in rolling or tossing the ball in a overhand manner.
- Have the child sit on the floor with his legs spread apart, or in another comfortable seated position. Roll the ball to him. Help him roll it back to you if necessary.
- 7. Roll the ball away from the child and have him crawl or walk after it. Illuminate the ball if necessary.
- 8. Hide the ball under a cloth a little at a time. Have the child retrieve the ball.



**CAUTION:** 

Do not, under any circumstances, allow a child to use the bunji ball on elastic string independently. Activities with the ball and elastic string should be closely supervised to avoid the pos sibility of strangulation.

- Dangle the ball in front of the child or pull it across the floor while he tracks it. Be sure to move the ball in various patterns, vertical, horizontal, circular, diagonal. Be sure to use in the area you believe to be his peripheral field. Illuminate the ball if necessary.
- 2. Bounce and dangle the ball from the elastic and ask the child to reach out and catch it.
- 3. Suspend the ball over the child on his right side; allow him to bat at it using his hands or a plastic bat. Repeat on his left side. Note whether his hits or misses are consistent on each side.
- 4. With the elastic strap still visible, place the ball under the

quilt. Have the child pull on the elastic strap. When he retrieves the ball, clap for him. Do this activity again, placing the ball inside a sock.

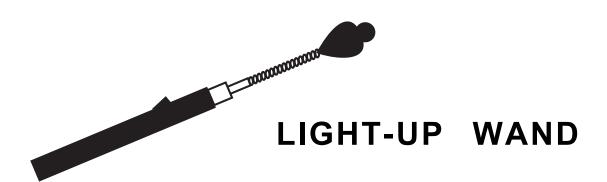
5. Briefly attach the ball to the child's hand or foot. Encourage the child to reach for and grasp the ball. Place the bell bracelet around the ball to make it jingle.



# **BELL BRACELET**

- Slip the bracelets on the child's wrists or feet and help the child shake them. As she listens to the bell, encourage the child to look at her hands or feet and bring them together at midline.
- 2. Hang a bracelet from a mobile or tie it to a crib rod or rail for the child to grasp, bat and kick.
- 3. Dangle a bracelet in various positions around the child. While jingling the bell, encourage the child to visually locate, reach for and grasp the bracelet.
- 4. Attach a long string to the bracelet and move it slowly in front of the child to encourage tracking. You may initially jingle it to give the child an auditory cue. Be sure to move it in various parts of the child's visual field. Note if the child tracks the bracelet.
- 5. Put a bracelet on both yourself and the child. Jingle yours in a 1-2-1-2 pattern. Have her imitate your pattern, while looking at her bracelet.

6. Put a string through the center of the bracelet and hold the ends of the string with each hand. Allow the child to move the bracelet back and forth along the string, making it jingle.

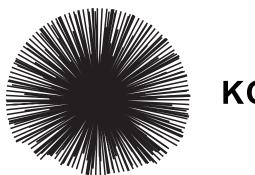


**CAUTION:** 

Always supervise the child closely while using the light-up wand. Take care to keep it a safe distance (12-18 inches) from the child's face. Take care to always put the light-up wand away so the child cannot retrieve it independently.

- 1. Touch the tip of the light-up wand to the fingertips of the child. Touch his knees and elbows. Name the body parts as you touch them.
- 2. In darkened room, turn on the light-up wand and pass the tip past the child's gaze from a 1-foot distance. Note if the child tracks the movement of the wand. Repeat the activity from a 2-foot distance.
- In a darkened room, about 18 inches from the child's face, make the light-up wand dance slowly to music. Be sure to rotate the light-up wand on its axis so the child can see all sides.

- 4. Let the child hold the light-up wand, taking care to point the tip away from his eyes. Direct the child in stroking his legs and arms with the tip.
- 5. Play some slow, soft music. Assist the child in moving the light wand to the music. After assisting, let him do it alone.



#### KOOSH BALL

- Have the child hold the ball in one hand. Shine a flashlight on his hand so he can spot the ball. Have him squeeze the ball with one hand, then the other. Have him roll the ball between his palms. Have him touch the ball to his face. Ask him what it feels like.
- 2. Allow the child to remove his shoes and socks and roll up his pant legs. Help the child run the koosh ball down his legs and on to the bottoms of his feet. Ask him if it feels different on the bottoms of his feet than it does on his legs. Ask him to describe the feeling if he can. If he is nonverbal, watch his face to see if he responds differently to the ball touching his feet than he does when it touches his legs. Note if he tracks the ball as you move it down his legs.
- 3. Have the child hold the koosh ball by a few of its elastic hairs and bounce it gently up and down. Instruct him to listen to the rustling sound while continuing to bounce the ball. Move the palm of his other hand into the path of the bouncing koosh ball. If this is done right, the elastic hairs of

the koosh ball should just barely touch the palm of his hand on its downward stroke. Ask the child if it tickles; watch his face to see if he is ticklish.

- 4. Toss the ball gently to the child. Ask him to catch it or to cover it with his hand when it lands near him. Ask him to toss it back to you. Make whooshing sounds to one another as the ball is tossed back and forth.
- 5. Place the koosh ball in the child's hand. Ask him to finish this sentence, "This ball feels like \_\_\_\_\_." (Hopefully he will name an object such as string, worms, etc.) Have him finish this sentence, "When I squeeze this ball it is \_\_\_\_\_." (stringy, etc.)
- 6. Make up a little tune to sing to the words:

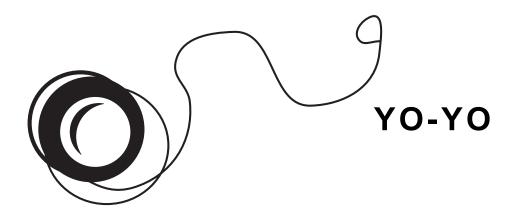
My Koosh ball is so squishy,

I play with it each day.

I like to bounce it on its strings,

And whoosh it as I play.

Allow the child to whoosh the ball through the air as you sing. Note if he follows the ball with his eyes. If not, encourage him to do so.



- 1. Place the yo-yo loosely in the child's hands. Pull on the string, making the yo-yo rotate in her clasp. Show her how to wind up the yo-yo. Repeat the activity, saying "yo-yo" in excited tones.
- 2. Place the child upright, bolstering her head and arms if necessary. Stand directly in front of her about 2 feet away. Work the yo-yo for her. Notice if she follows the path of the yo-yo as it travels up and down the string. Repeat this activity standing slightly to the right, then the left. If your yo-yo makes noise or music, repeat this activity standing directly behind the child. Note if she turns to locate the yo-yo.
- 3. Extend the string on the yo-yo. Pull the yo-yo along the floor as if it were a puppy on a leash. Allow the child to repeat this activity. Talk about puppies and look at a large colorful picture of a puppy. Read the story of the "Pokey Little Puppy."

- 4. Let the child play with the yo-yo while you supervise. Note if she watches the movement of the yo-yo or if she attends more to the sound it makes.
- 5. Cut a short piece (about 12 inches) of fat string or rope. Allow the child to feel the yo-yo string. Show her how yo-yo string is "thin," while the rope is "thick." Examine flexibility of the rope and string. Form the string into a circle.
- 6. Cut a circle from a piece of paper. Have the child place the yo-yo string around the edge of the circle.



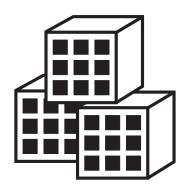
# Sensory Activities For Items From

# Let's See

Vision Development Perceptual Activities

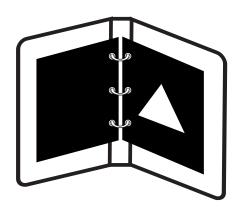
Kit





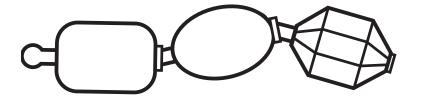
#### **BLOCKS**

- 1. Show the blocks to the child. Allow her to randomly play with them in order to get accustomed to their sizes and surface textures. Ask her to name their colors.
- 2. With the flexible shaft penlight, cast the light on one block at a time. Ask the child to pick up the lit block and put it in the pail. Dump them out. Repeat.
- 3. With the pail half-full of blocks, shake the pail. Ask the child to complete this sentence, "This sounds like \_\_\_\_\_." Allow the child to put blocks in and out of the pail while listening to their clatter.
- 4. Line up a block, a foam shape and a ball. Explore the surface textures of each with the child. Ask her to pick up "the hard one." Then ask her to pick up "the squishy one, etc." You may repeat the exercise with other objects.
- 5. Direct the child in stacking the blocks. Allow her to knock them down and stack them again by herself. Shine the flexible shaft penlight up and down a stack of blocks she has built. Ask her to follow the light with her finger.



#### SHAPE DECK

- Use the shape deck as a stimulus for the child to track or attend. Move the shape deck item in vertical, horizontal, diagonal and peripheral patterns. Do this about 2 feet from the child, then gradually move farther away. Discontinue when the child fails to track.
- Have the child turn the pages of the shape deck book while you encourage visual attending to each item pictured. Note the child's behaviors. You may want to name the shapes and their colors.
- 3. Lay the shape deck items out on the floor or table. Encourage the child to locate each shape deck item visually and collect it.
- 4 Use a clothespin and yarn to hang several shape deck items from a mobile suspended over the child.
- 5. Use the shape deck to name items of similar shape. "This is round. What else is round?" The child may reply, "Ball, marble, head" etc.

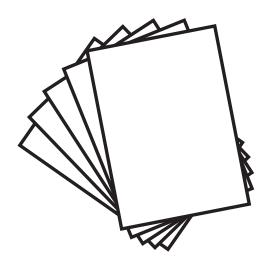


# SNAP-LOCK BEADS

- 1. With beads attached in one string, pull them around in a swirling and twisting pattern on a table or on the floor in front of the child. Look for visual attending behaviors.
- 2. Help the child put the beads together to make a necklace.
- 3. Pull the beads apart one at a time and drop each one into the pail. Then reverse the procedure.
- 4. Hold or hang the string of beads in front of the child within arm's reach for swiping, batting and kicking.
- 5. Give the child two beads. Show him how to snap and unsnap them. Have him listen to the popping sound. Ask him to repeat the sound.
- 6. Have the child sort the beads by shape or color.
- 7. Have the child make a circle out of the beads and place it on the floor. Ask him to throw putty balls or rolled-up socks into the circle.



- Have the child drop putty balls into the pail. Have her remove them and clap the putty balls together. Point out how they flatten.
- 2. Have the child place items in the pail and then retrieve the items. The child may need hand-over-hand assistance.
- 3. Use the pail to collect favorite kit items. One by one, take them out of the pail and place them on quilt squares.
- 4. Have the child wear the pail as a hat and view himself in the mirror. Make up a pretend story about the child who wore a pail as a hat.
- 5. Talk about all the things one can do with a pail. Ask the child to examine the pail and tell its shape, color, texture, etc.
- 6. Hide something such as the yo-yo under the pail. Ask the child to search for the object. When she finds the object allow her to play with it as a reward.



# PAPER (CARDBOARD AND ADHESIVE)

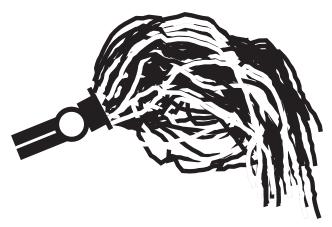
- Cut out shapes from various colors to hang over a crib, from the ceiling or to stick to the crib. Be sure to hang the shapes so they are visible to the child underneath, not to the adult standing next to him.
- 2. Hold a whole or partial sheet above the child's head and bring it down in front of the child (minimizing air movement). Note his responses. Help the child reach out and pat the sheet, saying, "It's here." Remove the sheet and say, "It's gone." Repeat several times.
- 3. Make colored confetti. Place in box or pail. Add auditory cues such as bells, etc. Have the child play with and manipulate the confetti.
- 4. Create bold and interesting patterns for fixation: large geometric designs, a face. Attach to a playpen, wheelchair tray, the floor or wall. Ask the child to throw a putty ball toward the object.

- 5. Use the paper for a high contrast background or place mat to identify various work stations and play areas.
- 6. Using the adhesive paper, cut out a variety of shapes and designs. Use to develop body awareness by sticking to the child on various body parts. You may also wish to have the child find the designs and shapes pasted to a door.
- 7. Cut out a large shape and present it on the GrandStand at the floor or tabletop level. Ask the child to point the lightup wand at the shape. Repeat for other shapes.
- 8. Use the stickers in the paper packet as rewards, or stick them to the paper in shapes or patterns.



#### **CRAYONS**

- Trace around the child's hand or foot. Encourage her to do likewise.
- 2. Scribble on the paper as the child watches or draw a particular pattern-stripes, face or checkerboard. Ask the child to do it too.
- 3. Color the child's fingernails to draw attention to her hands.
- 4. Draw a shape or outline of a toy or common object. Have the child color inside the outlined shape.
- Make parallel lines using yarn and glue, crayons or pipe cleaners. Have the child draw a line between the parallel guidelines.
- 6. Cut some basic shapes such as animals, car, truck or toys out of poster board. Let the child trace around a shape, then color it in.



# **STREAMERS**

**CAUTION:** 

Take care to keep streamer sticks away from children's faces. Do not allow children to play with the streamers unattended. Take care to always put the streamers away so the child cannot retrieve them independently.

- Gently wave a streamer about 2 feet from the child's face.
   Move it closer, then farther away, noting the child's attending behaviors.
- 2. Touch a streamer to the top of your head, then to the top of the child's head. Say "head." Repeat for hands, elbows and feet.
- 3. Anchor a streamer handle with a lump of clay or play-doh. Ask the child to crawl or walk to retrieve the streamer.
- 4. Play or sing a happy tune. Move the streamers in unison with the beat of the music. After a bit, give one streamer to

the child. Show him how to move it to the music.

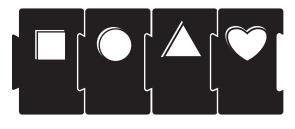
- 5. Ask the child to name the colors of the streamers. Show him how to shake them to produce the whooshing sound.
- 6. You hold a streamer, then give one to the child. Ask him to imitate your movements with the streamer.
- 7. Do a cheer spelling out the child's name. "Give me a 'C.' Give me an 'H," and so on until the child's name is spelled out. Then ask, "What does it spell?" Shout the child's name excitedly while you and the child cheer for him with the streamers.



**CAUTION:** Do not allow your student to use this item unsupervised. This item has two small parts.

- Make sure your flexible shaft penlight has working batteries. In a darkened room, make the child comfortable and, if necessary, support her head and neck. Then, without turning on the flexible shaft penlight, slowly drag the tip along the child's bare arms and legs. Allow the child to enjoy the sensation.
- 2. Turn on the flexible shaft penlight. Repeat the previous activity. Note if the child responds differently to the same exercises.
- 3. Play some soft music. With the flexible shaft penlight turned on, move it very slowly in long horizontal patterns in the child's field of view. If the child is able to follow the movement of the penlight, then begin moving the penlight in slow circles within her field of view. Take care to avoid shining the light directly in the child's eyes.

- 4. In a darkened room, and with the penlight turned on, touch the tip of the penlight to the child's hands, feet, knees, shoulders. Say the names of the child's body parts as you touch them. Encourage the child to repeat or to name them herself.
- 5. Place the puppet on your left hand and hold the penlight in your right hand. With the penlight turned on, gently touch it to the top of the puppet's head, mouth and neck. Name the parts of the puppet as you touch them. Encourage the child to repeat or name them herself.
- 6. If the child is 4 years old or older, hand the penlight to the child and ask her to move it to music. Do not allow the child to move the flexible shaft penlight close to her eyes.
- 7. Repeat the above exercises in a daylight setting.



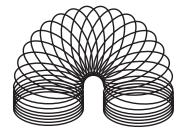
#### **FORM BOARD**



- 1. Show the child the inserts. Name the shapes with him. Allow the child to trace the outside shape with his index finger. Show him the difference in the shapes, "the square has four corners, while the triangle has only three, etc."
- 2. Next, give the child the form boards. Let the child play freely with the inserts and the form boards. Notice if he tries to fit the inserts into the form boards. If he does not, eventually you may demonstrate to him how to fit the inserts into the form board.
- 3. Give the child a small amount of Chex or other square cereal. Let him explore the shape of the cereal. Ask him which insert is the same shape as the cereal. You may repeat this exercise using candy hearts, round vanilla wafers or other foods which have the same shapes as the inserts. After the exercise, you may want to let the child choose a wafer for a snack.
- 4. Allow the child to explore the outer edges of the form boards. If he does not notice it himself, show him how the form boards

can all be linked together to form a train. Allow him to make a train of form boards. Them let him put the inserts into the form boards. Give the train a name such as "the form train." Make train sounds during your form train activity. You may want to talk a little about trains and how many cars are linked together to make a train.

5. After the activity, read the child the story of "The Little Engine That Could," and talk about trains.



# SLINKY

- 1. While seated at a table, introduce the child to the slinky. While it sits on the table, allow her to feel the hollow center of the cylinder it forms. Allow her to explore the rings and ridges.
- Now take the top part of the slinky, pulling it over so it sits next to the bottom part of the slinky on a flat table. The slinky will now form an upside-down "U" shape. Let the child explore with her fingers the gaps between the rings of the slinky.
- 3. Allow the child to take half the slinky in her right hand and half in her left hand and pour the slinky back and forth between her two hands. Listen to the sound the rings make as they move against one another. You may want the child replicate the sound, if she can.
- 4. Allow her to play with it freely so she becomes familiar with the way it moves and can be manipulated. Talk about how the slinky can change its shape. Let the slinky come to rest on a flat table.
- 5. You may want to talk about animals or other objects which change shapes. Examples: marshmallows, earthworms, pillows, snakes, hedgehogs.

# VISION DEVELOPMENT TEACHER-GENERATED IDEAS

### Perception

- Make large dot-to-dot duplicate sheets using various shapes as guides
- 2. Use different sized baskets and boxes for sequencing, biglittle, in-out.
- 3. Have colored egg and jelly bean hunts either indoors or out.
- 4. Use colored sand, available in craft shops, in trays for tracing hands and objects.
- 5. Make bowling pins from painted milk cartons; use rubber ball to roll at pins.
- Take photograph of child and other familiar faces. Enlarge photo and glue it to a hard backing, then cut into simple puzzle pieces.
- 7. Paint footprints onto sidewalk or draw on paper and paste to floor; have child walk in them.
- 8. Place colored circles or squares on a drum and have child hit the yellow, red, blue, etc. shape.
- 9. Cover one-half pint, quart, and one-half gallon ice cream

- containers and milk cartons with bright, colorful, textured materials. Use for nesting, comparison, etc.
- Take two simply-drawn pictures of an item in child's environment and cut one into four pieces. Encourage child to put pieces together to match whole.
- 11. Use carpet squares in bright colors to distinguish and identify colors, develop gross motor skills and follow directions, e.g., "Step from red square to yellow square."
- 12. Make a set of cards with lines to be finger-traced. They can be made from ribbon, yarn, sandpaper, felt, etc. The more curves or angles, the more difficult the task.
- Outline simple pictures with colored yarn to help with coloring.

# MATERIALS TO DEVELOP REMAINING VISION

One of the primary problems of the low vision child is that there is very little incidental learning through the visual sense. The visual functioning ability of the child is primarily developmental. The more the child looks, especially at close range, the more he stimulates the pathways to the brain. As the brain is given more information, the child begins the process of discriminating forms, pictures and symbols. Some children with low vision are reluctant to use their vision, and it is difficult to motivate them to do so. Since they have never used their vision, they do not miss it.

Teachers need to give each child an opportunity to develop all his senses, and to work with children in visual experiences as well as tactile ones. The primary goal of the teacher should be to permit each child to develop his visual ability to the highest possible efficiency in order to supplement his tactile and auditory senses.

In choosing toys for this project, our criteria were complex. Initially we wanted to catch the child's attention. To do this we sought items with bright colors, appealing sounds or interesting movements. We also selected the toys on the basis of how easily they could be used by the children and whether they could be used for more than one purpose.

The following general guidelines should be used in choosing toys for children with low vision:

- Toys should be of sturdy, simple construction, with brightly colored, nontoxic surfaces. However, they should not be so intricately patterned or designed as to be distracting to the child.
  - 2. Use of black and white toys should be encouraged.
  - 3. Toys should have no sharp edges or parts too small for the child to handle safely.
  - 4. Toys should be easy to manipulate and enjoy with a minimum amount of help from parents or teachers.

# COMMERCIAL TOYS OF HIGH VISUAL INTEREST

A list of the complete addresses of the manufacturers follows this section.

1.	lumning Frog	hv	Fisher-Price
1. 2.	Jumping Frog	by by	Gabriel
	Disney Poppin Pals	by	
3.	Happy Apple	by	Fisher-Price
4.	Puzzle, crib & playpen	by	
5.	Tote 'n' Play	by	•
6.		by	Arco Industries
	Roto-rattle	by	Ambi Toys Europlastic
8.	Clatterpillar	by	Knickerbocker Toy Co.
9.	Playpath Peek-a-boo Ball	by	Johnson & Johnson
			Baby Products
10.	Playpath Stand-up Man	by	Johnson & Johnson
			Baby Products
11.	Rock 'n' roll	by	Ambi Toys
12.	Wobble Globe	by	Kiddicraft
13.	Ring around top	by	Gabriel
14.	Squeeze 'n' Squeak	by	Playcraft-Mettoy
15.	Pull toys and Music Box	by	Kouvalias
16.	Plastic Slinky	by	James Industries
17.	Mother Duck pull toy	by	Brio-Scanditoy
18.	Stack 'n' Ring	by	Tonka
19.	Melody Mike	by	Gabriel
20.	Simple Picture Books	by	Bruna Books and
		-	Brimax Books
21.	Twin rattle	by	Ambi Toys
22.	Animal Ring	by	Fisher-Price

23.	Lots o' Gears	by	Childcraft
24.	Winnie the Pooh Pop-up	by	Gabriel-Child Guidance
25.	Jack-in-the-Box	by	Hasbro
26.	Circus Top	by	Lorenz Bolz
27.	Take-apart Ball	by	Ambi Toys
28.	Musical Calliope	by	Mattel
29.	Doggone Doggie	by	Tomy
30.	Postal Station	by	Playskool
31.	Active Baby	by	Ambi Toys
32.	Happy teether	by	Playskool-Milton
			Bradley
33.	Pull Toys	by	Kouvalias
34.	Big Bird Chair	by	Knickerbocker Toys
35.	Baby Butterfly, teether		
	and rattle	by	Fisher-Price
36.	Finger Puppets	by	Gabriel
37.	Windup Animals	by	Aviva Toys
38.	Crib action toys	by	Gabriel
39.	Crib toys	by	Semper
40.	Loop the Loop	by	Mickey Mouse- Walt
			Disney
41.	Push toys: Corn Popper	by	Fisher-Price
42.	Cheerleader Pompom	by	Cheerleader Division -
			Valley Decorating Co.
43.	Singing Bird	by	Playart
44.	Pound-a-ball	by	Gabriel
45.	Tuneyville Choo Choo	by	Tomy
46.	Handy Dandy	by	Ambi Toys
47.	Dalmations	by	Nursery Originals
48.	Sleepy Friends Mobile	by	Nursery Originals

Most above-named toys are available at commercial toy stores or outlets.

#### LIST OF MANUFACTURERS

Ambi Toys Europlastic Amsterdam, Holland

Amloid Company 5th Street Saddle Brook, NJ 07662

Arco Industries 503 Star House Kowloon, Hong Kong

Aviva Toy Co. 13009 Saticoy St. N. Hollywood, CA 91605

Brimax Books
Bobbs Merrill
P.O. Box558
4300 W. 62nd St.
Indianapolis, IN 46206

Brio-Scanditoy Corp. 6531 N. Sidney Place Milwaukee, WI 53209

Bruna Books
Methuen Inc.
733 Third Ave.
New York, NY 10017

Childcraft Edison, NJ 08817

Enco Industries Jericho, NY 11753

Fisher-Price Toys 606 Girard Avenue East Aurora, NY 14052

Gabriel Industries, Inc. 200 Fifth Ave. New York, NY 10010

Hasbro Industries, Inc. 1027 Newport Avenue Pawtucket, RI 02826

Ideal Toy Corp. 184-10 Jamaica Avenue Hollis, NY 11423

James Industries, Inc. P.O. Box 4O7 Hollidaysburg, PA 16648

Johnson & Johnson Baby Products Skillman, NJ 08558 Kenner Products 1014 Vine Street Cincinnati, OH 45202

Kiddicraft Kenley, Surrey Great Britain

Knickerbocker Toy Co. 207 Pond Avenue Middlesex, NJ 08846

Kouvalias Reeves International, Inc. 1107 Broadway New York, NY 10010

Lorenz Bolz Zirndorf, Germany

Masudaya Toys Hong Kong

Mattel Toys 5150 Rosencrans Ave. Hawthorne, CA 90250

Nursery Originals, Inc. Central Falls, RI 02863

Playart Ltd. 423 Central Bldg. Hong Kong Playcraft-Mettoy Co. Ltd. North Hampton, U.K. Great Britain

Playskool-Milton Bradley 4561 W. Augusta Blvd. Chicago, IL 60851

Semper AB, Fach SI0435 Stockholm 23 Sweden

Tomy Company. Inc. 901 E. 233 Street Carson, CA 90774

Tonka Toys 4300 Shoreline Blvd. Mound, MN 55364

Valley Decorating Co. P. O. Box 251 Pinedale, CA 93650

Walt Disney Div.
Illfelder Toy Co., Inc.
915 Broadway
New York, NY 10010

# VISION DEVELOPMENT MATERIALS COMMERCIAL ITEMS SUGGESTED BY TEACHERS

**Nondirection light:** May be turned off and on by means of a long string switch

Futura Disco Light: Heat causes colored and patterned drum to revolve; light shining through the drum is refracted by prism-like shell

Lava Lamp: Brightly colored fluid changes shape within lighted cylinder

**Light Box & Level I Materials, APH Catalog No.:** 1-0866-00 & 1-0867-00

Lite Brite: Brightly colored plexiglas pegs fit into lighted pegboard

**Star Wars Force Sword:** Flashlight with colored lens attaches to narrow, translucent, plastic tube

Whisperlite: Mounted light with control which allows it to light up to various levels of sound

Auditory light: Flickers with sound

**Light organ:** Flashing lights are synchronized with sound: often has lights of several colors

**Colored cellophane:** Tape over holes cut in cardboard template.

**Prism:** Hang in window and hold over white paper to break white light into component wavelengths

Bicycle reflectors: Attach to child's hand with elastic

Shiny L'Eggs containers: Hang by a string and fill with noise making material; crochet loose cover to enable child to grasp it

Flutter Ball: Has bright rotating object inside

Clear plastic bottles: Put bright objects inside

Mirrors: Unbreakable wall-mounted or hand-held

Pinwheels: Discount store

Feather duster: Discount store

Yarn balls: Large ones, avoid swallowing hazard

Keys: Colored aluminum keys on a ring

**Dishpan:** Fill with styrofoam chips or blocks

Squeak toys: Doggy toys do nicely

Fabric tape: Place brightly colored tape on child's body,

pluck off

**Gummed Christmas Bows:** Stick on child's body for him to remove; match bow to colored surface

**Mobiles:** Brightly-colored, sewn figures made of reflective material.

**Foil:** Tape sheets of aluminum foil in one corner of the room; hang lights nearby and out of reach of child.

Fluorescent orange safety vests: Worn by teacher to be localized and followed by student

Musical Merry-Go-Round, music box with toy merry-go-round: Place candy on merry-go-round for child to track and remove

Clown and ladder: Clown "climbs" down ladder

**Flurry:** Red and yellow paper and cardboard toy, accordion shaped, which hangs from ceiling

Formboard & jumbo pegboard made of wood, tactilmat, or crepe rubber: Put shapes in and out using tactile sense.

Overhead projector or slide projector: Project interesting pictures, colors, configurations

Party favor blowers: Make interesting noises

**Glow-in-Dark Stars:** 1" dia. stars to put on walls or ceiling, by Edmund Scientific

**Tambourine:** Shine penlight from underneath and have child tap the light

Simon: Colorful light game

Kites: Japanese style plastic kite with streamer tails

Glow ball: Inflatable yellow ball with light inside

Bubble pipe and soap bubbles: Feel them explode

**Funlight:** Battery-operated toy which projects images onto a wall. Discs with pictures or patterns are inserted and focused

**Developmental Learning:** Tracking cards, perception cards, discrimination, etc., can be purchased from:

# **Developmental Learning Materials** 1 DLM Park Allen, Texas 75002

Penlight with Color Cups and Flashlight with Color Discs: Battery-operated lights which can project colored lights onto walls and other objects. Designed to help students develop visual awareness and visual tracking skills; can be purchased from:

#### American Printing House for the Blind. Inc.

1839 Frankfort Avenue Louisville, KY, 40206-0085 1-800-223-1839

# Art supplies which fluoresce are available from some hobby shops, art supply stores and from:

Dick Blick

P.O. Box 26

Allentown, PA 18105

**Dick Blick** 

P.O. Box 1267

Galesburg, IL 61401

#### These include:

Paper

Posterboard

Vinylized cloth

Adhesive-backed paper

Crayons

Chalk

**Pastels** 

Felt tip markers

Spray paint

Fluorescent fabric, fringe, ribbons and feathers may be found in some fabric stores or purchased from:

#### **Associated Fabrics Corporation**

10 East 39th

New York, NY 10016

Activity Panels: Series of raised shapes with grooved borders

Exceptional Play, Inc.

Box 1015

Lawrence, Kansas 66044

# OTHER SUGGESTED FLUORESCENT MATERIALS

A number of commercial toys are made from plastic which appears day-glo pink, red, orange, yellow, or green. A few examples:

Fisher Price Ring Stack

Fisher Price Animal Ring Teether

Fisher Price Squeaky Bear

Fisher Price Creative Blocks

Fisher Price Magnetic Letters

Playskool plastic tool set

Frisbee

Beach pail and shovel

Plastic Halloween pumpkin

Plastic Easter eggs

Inflatable toys

Phosphorescent Glow-Stix

Phosphorescent Moon and Stars

Glow-in-the-Dark Pumpkin

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