

Let's See



Vision Development Perceptual Activities

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VISION DEVELOPMENT ACTIVITIES

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**Perceptual
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.

Let's See

Vision Development Perceptual Activities

Elaine Kitchel, M.Ed., Project Director



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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, hundreds of 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 new ***Let's See: Revised Vision Development Activities Kit*** with a blacklight:

1. Make sure child and practitioner always wear UV and blue-blocking 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 sun-blocking creams on exposed skin when participating in black light activities.

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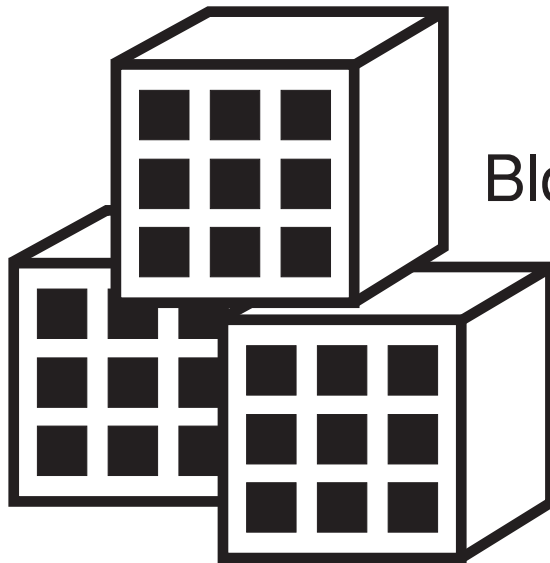
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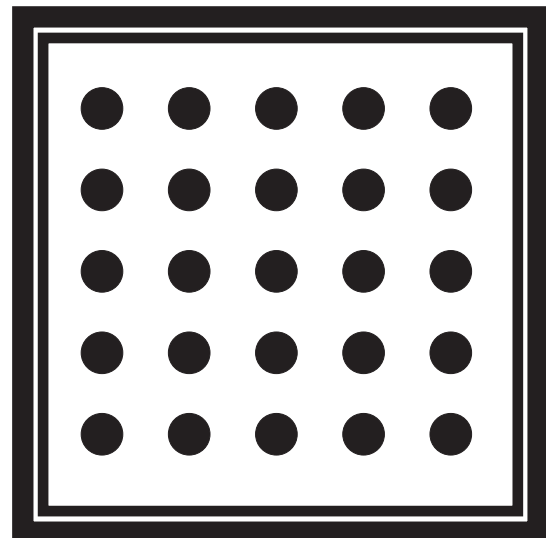
Kit Items – Perceptory Level

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

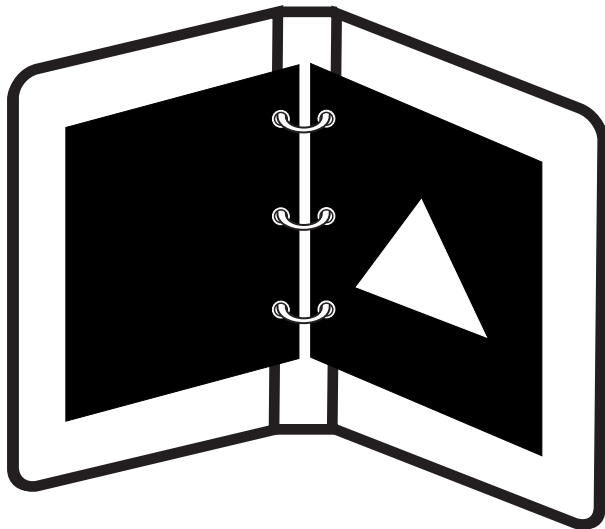
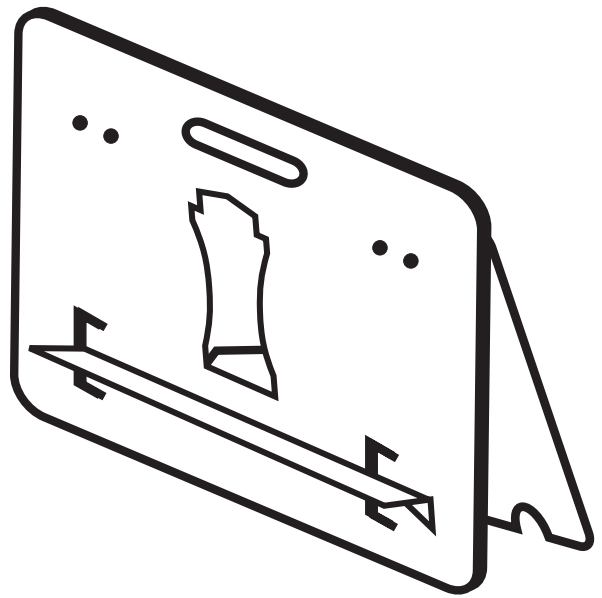


Blocks

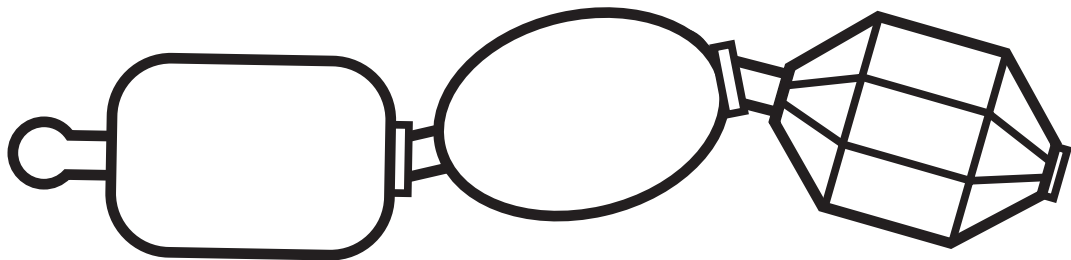
Peg Board



Grandstand



Shape Deck

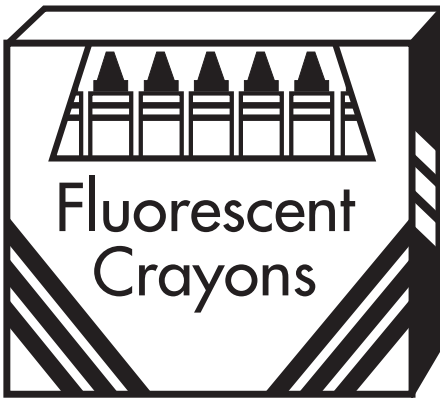
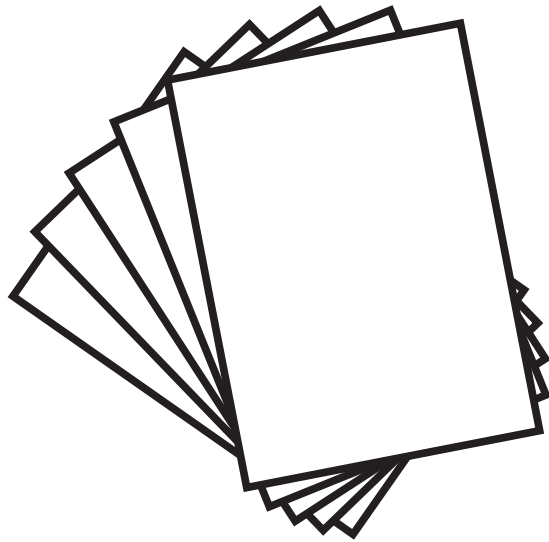


Snap-Lock Beads

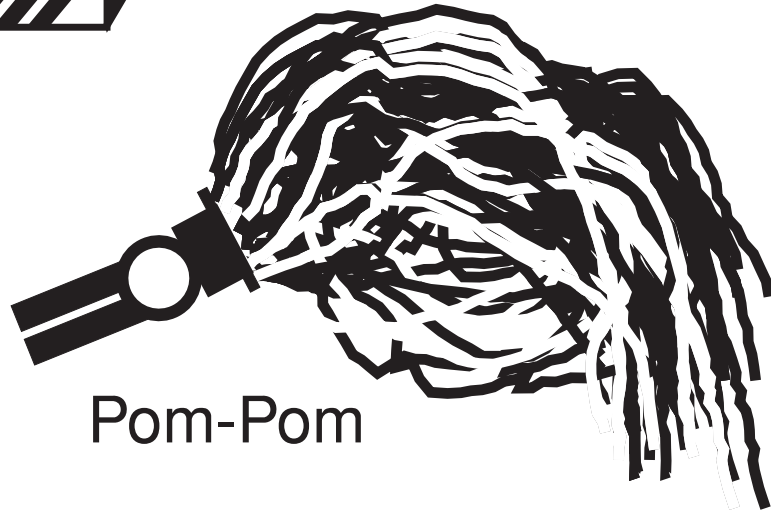


Pail

Paper (Cardboard
and Adhesive)



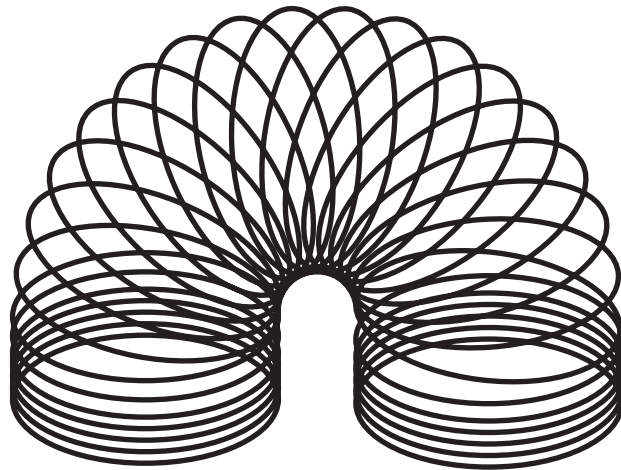
Crayons



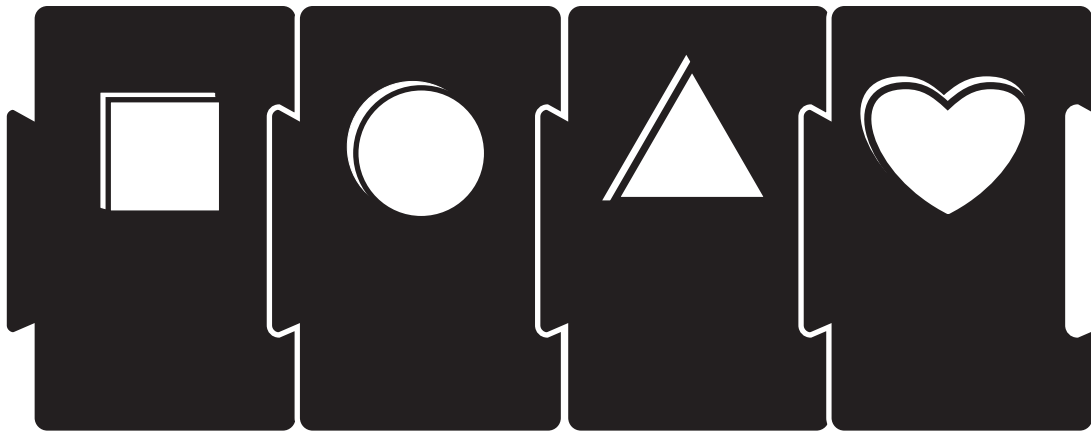
Pom-Pom



Flexible Shaft
Penlight



Slinky



Form Board and Form Board Inserts

Perceptual Activities

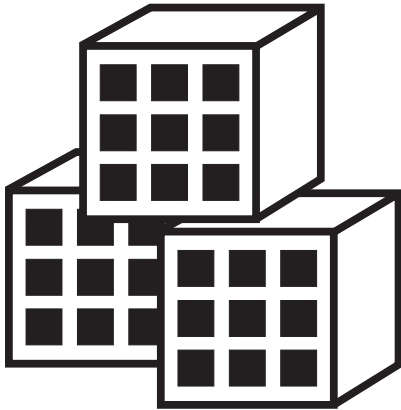
WARNING:



ULTRA LENS
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.

Perceptual Activities



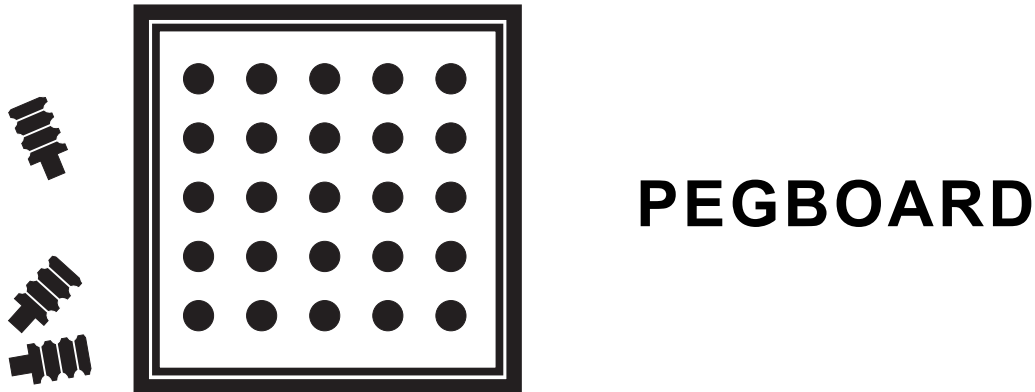
BLOCKS

1. Make a roadway for cars. Have the child manipulate the cars over the various roadway configurations.
2. Have the child sort the blocks according to color. Initially, have him select two blocks which are the same color out of a group of three blocks. Gradually add more blocks as each color is mastered. Later give him two different colored “sample” blocks and lay out an assortment of blocks in front of him to match to the samples. Do not tell the child he is incorrect if he cannot match colors. Just go on to another activity. Many vision-impaired children are also color blind to certain colors.
3. Use for counting. Count blocks as you drop them in a pail and take them out. Stack them to make a tall building. Count as you build it up or take blocks off from the top.
4. Use for learning “in” and “out.” Put the blocks into a pail one at a time, then take each out one-at-a-time. Say “in” and

“out” as you do the activity.

5. Make a “train” of two or three blocks and have the child make an identical one. At first, leave your model in view for the child to match. Later, cover yours up and have the child try to arrange his blocks by visual memory only.
6. Use the blocks for stacking. Teach the child to stagger the blocks like a bricklayer.
7. Match the blocks to teacher-made design cards or cue cards. Again watch for inability to match.
8. Have the child arrange the blocks according to your instructions. Use positional words (above, below, beside, etc.) and color names, asking him to put the red block beside the blue one, and the green block on top of the red. Increase the complexity of your instructions as he becomes more capable. Reverse roles and let him tell you how to arrange the blocks. Use the other elements of the kit, as in “place the yellow block beside the pail.”

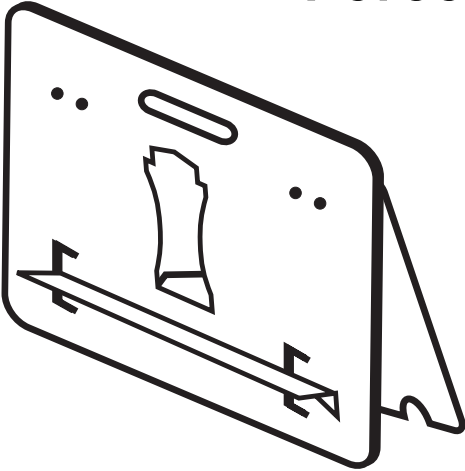
Perceptual Activities



1. Make simple pictures or shapes using the pegs. For a face, put two green pegs near the top for eyes, one yellow in the middle, and a row of red near the bottom.
2. Place one different colored peg in each row. Have the child match all the like colored pegs in the remainder of the row.
3. Place two or more pegs in a row in a particular sequence (e.g., red-blue-red). Have the child select and insert the appropriate pegs to match your sequence on the adjoining row. Gradually, increase the complexity of the sequence.
4. Have the child sort the pegs by color. If the child has difficulty, try just the yellow and blue pegs.
5. Use the board and pegs for a number/counting activity. Ask the child to put three pegs in the board, seven pegs in the board, and so on.

6. Encourage a left to right sequencing of the pegs. Have the child begin on the left side of the pegboard and work towards the right side, placing the pegs in a line.
7. Have the child arrange the pegs so as to make certain designs on the pegboard. For example, ask the child to make a triangle or square with the pegs.
8. Use the pegs and board to demonstrate the meaning of positional words: above, below, beside, middle, corner, top, bottom, etc. Direct the child to put the pegs in these locations or place them yourself and have him name their locations. If the child has trouble seeing the holes, light the pegboard with a flashlight.
9. Use the flexible shaft penlight to illumine one hole at a time. Instruct the child to put the peg in the hole which is “lit up” or “brighter.”

Perceptual Activities

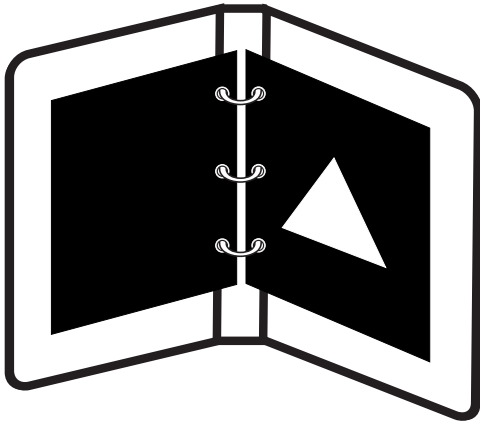


GRANDSTAND

1. Use the Grandstand to bring other materials (form board, pegboard, shape deck, etc.) within easy viewing distance.
2. Put colored or white paper under the clips and use the Grandstand as an easel. Use crayons or fluorescent colored markers.
3. Remove the shapes from the shape deck and place two or more on the Grandstand to perform matching and alike/different exercises.
4. Draw a target for use with putty balls on a piece of posterboard and place it on the GrandStand. Toss putty balls at target. Clap when the target is hit.
5. Drape a vinylized cloth or cardboard over the Grandstand and use as a background contrast for other materials.
6. Make and cut out 4" or larger capital alphabet letters and

numbers from various colors of poster board. Use black paper as a background on the Grandstand, and place an alphabet letter on it. Have the child name the letter and something that begins with that letter (example: M for muffin.) Have the child recognize numbers individually, and then count in sequence as you put numbers on the Grandstand. Randomly put numbers on the Grandstand and ask the child, “What comes before this number?” This can be repeated with the alphabet letters, too.

Perceptual Activities



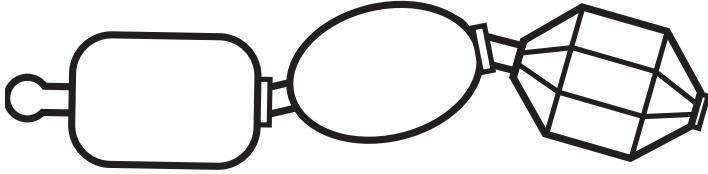
SHAPE DECK

1. Spread four shapes (two matching pairs) in front of the child and ask him to place the matching shapes together in two different piles. When he can perform this, gradually add more pairs of cards to the group he must match.
2. Help the child point to the pictures, giving verbal descriptions of the objects. The child may wish to trace the pictures with his finger. Help the child draw an object from the deck.
3. Play a visual memory game. Show the child two cards, then turn them over and ask “Where’s the heart? Where’s the triangle?”
4. Use the deck as flashcards, having the child identify each card as you hold it up. Try this task at varying distances from the child. Repeat this task while presenting the cards from the left, then the right of the child.
5. Orient a card in a particular way. For example, set it with the

heart upside down. Give the child the matching card and have him orient it the same way. Say “This card is upside down,” or “Hold your card sideways.”

6. Make some shapes from fluorescent poster board: some that duplicate the shapes in the shape deck, and some that don't. Mix up shapes in a pile. Put a shape on the table and have the child find the duplicate in the deck. Have the child name the shape, (star, ring, bird, heart, triangle, square, circle, diamond, straight line, oval, etc.). Allow the child to trace the shapes with his finger or outline them with a piece of yarn.

Perceptual Activities



SNAP-LOCK BEADS

1. Make a ring with the beads and place it on the floor. Help the child toss putty balls or other items into the ring. Have him put one foot in the circle, jump over it, step over it, walk around it, etc.
2. If the child has color vision, have him sort the beads according to color and put them in separate containers.
3. Make a two-bead sequence and have the child make one just like it. Increase the difficulty as the child masters each level, working up to six beads or more.
4. Practice counting as you take each bead and connect it: 1, 2, 3, 4, etc.
5. Have the child listen as you clap three times. Ask him to give you the same number of beads as the claps. Increase then decrease the number as he matches the number of claps to the number of beads.
6. Have the child make a snake with the beads. Allow him to wiggle the snake along the floor. Make up a story about garden snakes and how they help farmers keep pests out of the corn.

Perceptual Activities



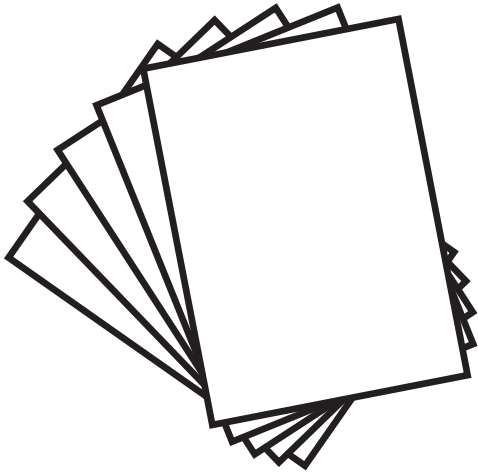
PAIL

1. Put several items in the pail and place it in front of the child. Encourage him to take the items out. To determine the child's level of preferred contrast, use items of varying intensity. Ask him which item he likes best.
2. Hide a favorite fluorescent toy under the pail and ask the child to find it. Play a "hide and seek" game with the pail and different objects.
3. Work on sorting with the pail. Have the child put little objects in the pail, then orange ones, etc.
4. Collect several kit or toy items in the pail. Have the child take each one out, name the item, and describe its use.
5. Have the child put the pail on his head. Tell a funny story about a child who wore a pail for a hat.
6. Teach the child to pour. Fill the pail with snap-lock beads or

putty balls. Show the child how to pour them out and fill up the pail again.

7. Out of paper, make a big, black arrow. Place the arrow in the pail with the tip pointing “down.” Ask the child to turn the arrow so the tip points “up.” Talk about “up” and “down.” Point your index fingers up and down while talking.

Perceptual Activities

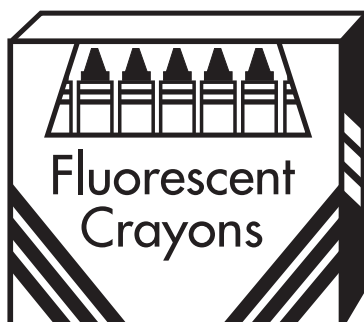


PAPER (CARDBOARD AND ADHESIVE)

1. Draw on the paper with thick black markers. Have the child trace over your lines, between your lines, etc.
2. Make a target for putty balls using the paper or cardboard.
3. Lay two different colors of paper, yellow and blue, on a flat surface. Hand objects to the child one at a time and tell him to put all yellow objects on the yellow and all blue objects on the blue paper. Gradually increase the visual complexity by using colors closer together in tone/intensity. Do this only if you have determined that the child has color vision.
4. Cut a path out of paper for a car, truck or windup toy to follow. Cut out a big, black arrow.
5. Cut out black paper shapes to place on white or colored paper. Have the child locate the shapes or trace around them with a finger or crayon.

6. Perform alike/different activities with shapes. For example, make a row of circles and put one triangle in it, and ask the child to find the one that's different. Ask the child to identify characteristics of the various shapes.
7. Make paper chains, hats, airplanes, etc.
8. Use several kit items, such as the stuffed shapes, to trace onto the cardboard or paper. Cut them out and work with the child, matching the proper stuffed shape to the cardboard/paper shape.
9. Use the paper/cardboard to cut out a variety of letters and numbers. Use to develop name and word recognition, letter recognition, number identification, and number concepts.
10. Using adhesive paper, cut out a series of shapes and multiples of these shapes (heart, flower, square, house, circle, cat, triangle, car, diamond and bird). Each week, pick a "Shape of the Week" and put those shapes in prominent places in the room. Talk about the shapes and have children locate every one of the shapes in the room. Have them name things that you can do with the shape, or where that shape is found in their neighborhood (Example: house = square + triangle, Example: flowers = garden or yard).

Perceptual Activities



CRAYONS

1. Help the child write or draw with the crayons. Use big pieces of paper and have the child draw with long sweeping movements. Use your hand over his if necessary.
2. Draw a heavy black outline of a shape, numbers, or letters. Have the child color inside the outlines. Then repeat the activity, having the child color outside the outlines.
3. Help the child trace around different objects with the crayons. Try using a frisbee, the foam shapes, a fan. It may be helpful to tape down the object first.
4. Draw black dots on white paper and have the child connect them with the fluorescent crayons. Start by using a simple pattern, perhaps three dots in a row, then gradually increase the difficulty. Use a variety of designs, patterns, numbers, and letters.
5. Draw a line or have the child draw one. Let her trace the line with her finger. Gradually, make the lines more complex and more difficult to follow with a finger or crayon.

6. Make several designs, patterns, letters, or numbers on paper with the crayons. Have the child copy the design, pattern, number, or letter.
7. Encourage the child to draw a picture and tell you a story about the picture. As the child is talking, write down or record the story. Then read or play the story back to her.
8. On drawing/sketch paper, have child color areas with different colors, filling up the entire sheet with color. You then paint over the colors with a thin coat of matte black paint and let it dry. Using a coin, have child scratch off paint to “draw” a picture, revealing the colors beneath.

Perceptual Activities



STREAMERS

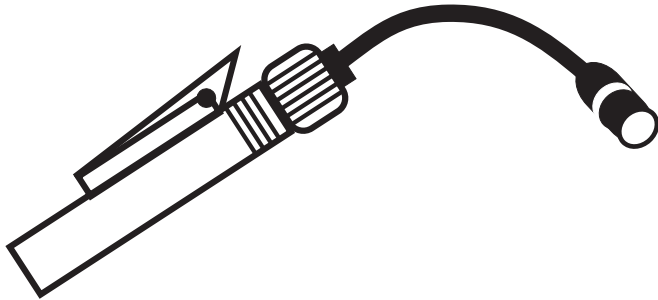
CAUTION: Take care to keep streamer sticks away from children's faces. Do not allow children to play with the streamers unattended. Take care to always put the streamers away so the child cannot retrieve them independently.

1. About 1 foot from the child's face, move one streamer slowly from left to right. Notice if the child is tracking. Repeat for up and down.
2. About 2 feet from the child's face, move one streamer into the center of vision, i.e., lined up with his nose. Slowly move the streamer to his upper left, upper right, lower left, lower right, always returning to center before moving to the next position.
3. With two streamers, slowly move the streamers together from left to right. Then move the streamers in directions opposite from one another. Note direction in which the child

tracks the diverging streamers.

4. Line up toys or shapes. Give the child a streamer and ask him to “touch the ball with the streamer.” Repeat for other items.
5. Give the child a streamer for each hand. Ask him to bring the streamers together. Then ask him to move the streamers apart. Ask him to move the streamers up, then down. As a reward, let him wave the streamers wildly while you clap as if at a parade.
6. Hold a streamer in each hand. Move them both to the left and both to the right. Say “Left.” “Right.” Repeat with “up” and “down.”

Perceptual Activities



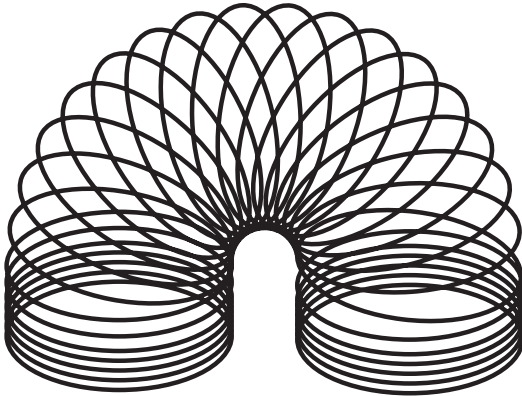
FLEXIBLE SHAFT PENLIGHT

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

1. Make sure your flexible shaft penlight has working batteries. In a darkened room, make sure the child is comfortable and, if necessary, support her head and neck. Turn on the flexible shaft penlight and move it gently in horizontal patterns within the child's field of view. Notice if the child attends, reaches for, or visually follows the flexible shaft penlight.
2. Now move the flexible shaft penlight in circular patterns. Make the circles change from larger to smaller. Notice if the child attends, reaches for, or visually follows the flexible shaft penlight.
3. Now move the flexible shaft penlight in vertical patterns. Notice if the child attends, reaches for, or visually follows the flexible shaft penlight. Repeat this activity using wave patterns of movement.

4. With the puppet on your left hand, and the flexible shaft penlight in your right hand, slowly wiggle them both. Note whether the child attends to just one of the objects or looks back and forth to each of them.
5. Do a pantomime in which the puppet tries to get the penlight, but cannot. Again, notice which object the child attends to most.
6. With the penlight on, show it to the child, then hide it behind your back. Notice if the child leans forward or tries to locate the penlight visually.
7. If the child is at least four years old, hand her the penlight. Instruct her to “light up your toes.” Repeat this exercise for various body parts.
8. Tie a yellow or white bow on the tip of the flexible shaft penlight. Repeat the above exercises in a daylight setting.

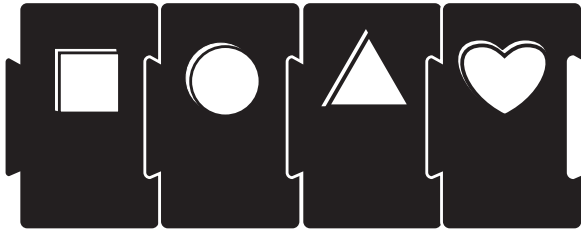
Perceptual Activities



SLINKY

1. Place the slinky in front of the child on a flat surface with flat side down, so that it looks like a cylinder. Talk about the colors of the slinky. Explore the concepts of “inside” and “outside” using the cylinder surfaces.
2. Ask the child to identify which part of the slinky is “up” and which part is “down.”
3. Have the child pick up the top half of the slinky with one hand. Let her explore how the slinky can expand and contract. Talk about how it gets “bigger” and then “smaller.”
4. Allow the child to hold half of the slinky on her left hand and half in her right hand. Allow her to pour the slinky back and fourth. Point out that the slinky will always pour toward the hand which is “down” or “lower.”
5. Allow the child to play with the slinky freely. Ask her to make comparisons with the way a slinky moves and the movements of an earthworm or some other object which has similarities with which the child may be familiar.

Perceptual Activities



FORM BOARD AND FORM BOARD INSERTS



1. Initially, give the child one insert and its frame. Have her fit the insert in the frame. As she masters the task, give her two inserts and the frames and so on, adding to the number of inserts among which she must discriminate as she learns to perform on each level.
2. Match the inserts to the corresponding picture on the shape deck.
3. Match the inserts to corresponding shapes cut from the fluorescent paper, vinyl, or adhesive-backed paper. Size and color could be varied for graduated grouping or sorting activities.
4. Trace around the inserts' shapes and have the child color them. Older children may want to cut out the paper shapes with blunt scissors.
5. Explore the child's classroom, home, or nearby outdoor area, locating circles, squares and so on.

6. Ask the child to place the inserts in a row as you call out the name of the shape. If she gets all four correct, mix them up and do it again until she has mastered linking the names with all the shapes.



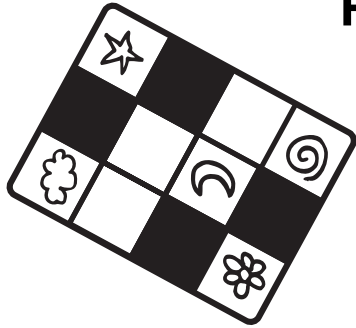
**Perceptual Activities
For Items From**

Let's See
Vision Development
Sensory Activities

Kit



Perceptual Activities

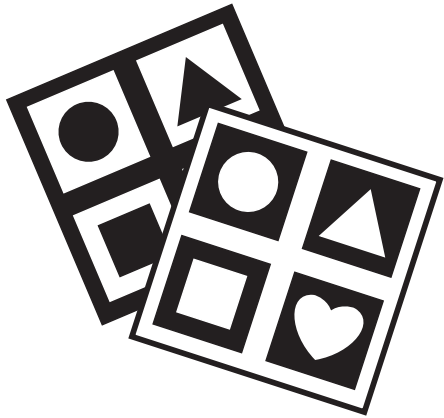


QUILT

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.

1. Place the child on the quilt. Put a favorite, brightly-colored object on the black side and ask the child to go after it; then place the same object on the white side of the quilt and ask him to go after it. Repeat with different items and with more than one item, asking child to get a specific one.
2. Use the patchwork side of the quilt for a twister game. Tell the child to put his hand, head, foot, etc., on certain colored squares.
3. Place puppet, putty balls or other items on quilt. Work with the child to match items to patches of the same color.
4. Use quilt as a giant “chessboard” for game playing. Using a spinner, advance object as many spaces as it calls for: 1, 2, 3, 4, etc.
5. Use the black/white side of the quilt to sort objects. For example: “Put all the balls on the black square and all the shapes on the white square.”

Perceptual Activities



FOAM SHAPES

1. Put some toys on top of some shapes, but not on all the shapes. Show the child a shape with a ball or toy on top. Have the child pick out the shapes with “something on them” (alike), and have him explore or discriminate those shapes without balls or toys on top (different).
2. Place one or several shapes on the floor. Have the child crawl toward the shapes. Encourage him to visually locate the shapes by game activities such as running and jumping on them, or gathering them. Have, child pick up the shapes one-by-one and place in the pail.
3. Place shapes in a stepping-stone path around the room; encourage the child to follow the “magic path” to reach a reward or surprise.
4. Using two identical sets of shapes, lay two shapes down and ask the child to copy your pattern. Increase the number of items in the sequence as the child masters each level.

5. Hold several shapes in your hand and ask the child to take one, take two, take a specific one, first one and then the other, etc. Gradually increase the complexity of the task.
6. Use the shapes, in conjunction with the quilt, matching colored shapes to the same colored patches. Have the child use black shapes made with laminated construction paper or poster board and put your shape on a green square. Have the child imitate you by putting her shape on a different green square. Repeat this game with the colors on the quilt. You can also use the black and white side of the quilt and use colored shapes to put on the patches (provides a greater contrast for severely impaired kids.) Alternate: Put colored shapes on the squares on the black and white side of the quilt. Have the child decide what square to put her shape on.
7. Match foam shapes with a drawing of the same shape and size. You may wish to draw these shapes on the posterboard provided in the kit.
8. Initially, give the child one shape and its frame. Have him fit the shape in the frame. As he masters this task, give him two shapes and frames, and so on, adding to the number of shapes among which he must discriminate as he learns to perform on each level.
9. Match the foam shapes with similar shapes cut from the fluorescent paper, vinyl, or adhesive-backed paper. Size

and color could be varied for graduated grouping/sorting activities. Be aware if the child is unable to match colors. Do not insist.

10. On paper, trace around the shapes and have the child color them. Older children may want to cut them out with blunt scissors.
11. Explore the child's classroom, home, or nearby outdoor area, locating circles, squares, and so on.

Perceptual Activities



PUPPET

1. Sing a song which has hand movements in it, such as “If you’re happy and you know it, clap your hands,” or play pat-a-cake, with the puppet on your hands. Put a sock on the child’s hand. Take turns waving “good-bye.”
2. Work on developing left and right concepts by playing a Simon Says game. Put the puppet on, then touch his right ear with the puppet, etc. Say “right” as you do it. Repeat for “left.”
3. Put on the duck puppet and have the child put the socks on his hands. Let him imitate your actions. Then reverse roles, and you’ll imitate his actions. This is a good activity for two children also.
4. Use the puppet at varying distances from the child and note his responses: Does he respond to the puppet when it is near, far, and in what area of his visual field? Note how he responds.

5. Place the puppet in varying locations around the child; if he has difficulty locating the puppet, pair it with tactual or auditory clues. Brush the child with the puppet; have it ring a bell or use a squeaker; direct your voice from behind it; move it rapidly from one location to another and have the child attempt to relocate it. Note the child's actions in locating the puppet.

6. Allow the child to pet the puppet on your hand. Talk about other ducks he may know, such as Donald Duck or Jemima Puddle Duck.

Perceptual Activities



SOCKS WITH BELLS

1. Put one sock on your hand and one on the child's. Ask him to do with it exactly what you do: pull it off, put it on, lay it on the floor in front of you, shake it, and so on.
2. Use socks as a surprise bag. Have the child reach inside to see what the surprise object is. Ask the child to identify and describe the surprise object. (Balls or blocks make good surprise objects.)
3. Use the sock as a pretend puppet, encouraging visual attending skills with the child by ringing the bell in front of him, to each side, above and below his eye level.
4. Use the sock to develop left-right orientation. Tell the child to put a sock on his left hand and right foot, etc. Sing the "Hokey-Pokey Song" with the child, using a recording of it if possible. Then put sock on the child's right hand and right foot. As you sing the song, teach him about right and left. On another day, you can put the socks on his left hand and foot and perform the song again.

5. Put socks on both the child's hands and put two on your hands as well. Make musical patterns by ringing the bells. Encourage the child to repeat your patterns.
6. Sing "Jingle Bells," using the socks as sleigh bells.

Perceptual Activities



CLUTCH BALL

1. Hold the clutch ball in one hand. With a flashlight in the other hand cast a light on the ball. If the child attends, reward him. If not, squeak the toy and note if he attends. Cast the light on a surface from the flashlight about 12 inches from the clutch ball. See if the child follows the light or remains focused on the toy.
2. Place several balls in front of the child. Ask him to hand you the bumpy ball, the yellow ball, the fuzzy ball, etc.
3. Stand up cardboard tubes decorated with fluorescent paper. Help the child roll the ball and knock down the tubes.
4. Play games rolling the ball to and from various children as their names are called. Vary the game, asking one child to roll the ball to “our friend who has on the red shirt,” etc.
5. Have the child imitate you. Squeak the clutch ball one time, then let the child. You squeak it two times, then let the child do it. You squeak it and then clap your hands, then let the

child imitate and do the same thing. This also is a good activity to encourage cooperation between two children.

6. Outline the rim of a plastic laundry basket with fluorescent tape. Play games tossing the ball into the basket.
7. Put the ball and two other items in the pail. Ask the child to “pull out the ball.” Then ask for the other items one at a time.

Perceptual Activities



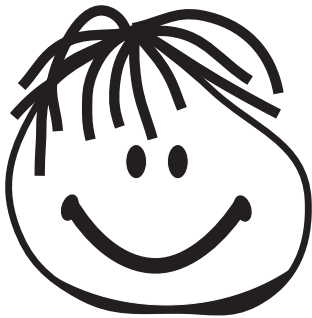
RUBBER BALLS

1. Scatter several balls on the floor and ask the child to pick up specific ones.
2. Hide a ball under the pail. Ask the child, "Where did the ball go?" Encourage him to look for it.
3. Play ball games with two or more children, rolling or bouncing the ball back and forth.
4. Have the child kick the balls, beginning with the largest one.
5. Roll a ball across the room and have the child try to find it. Note whether the child locates the ball more readily when it is near/left/right/center. To encourage systematic scanning, observe whether the child visually tracks the ball in motion, or reaches for it after it has stopped.
6. Alternate activity: Cut 8-inch circles out of the fluorescent poster board and tape these in various spots on the floor. Have the child roll the balls over the circles. Have him count

how many balls rolled over before stopping. You can increase the rolling distance by moving the child two steps back from the starting point each time the activity is repeated. Then, bring child two steps closer each time, until they are back at the starting point. Cheer for the child.

7. Lay the pail on its side and encourage child to roll balls into it from a close distance at first; then with each repetition, move child two steps back from the starting point. These points could be marked on the floor with reflective or fluorescent tape beforehand to make the activity flow smoothly.

Perceptual Activities

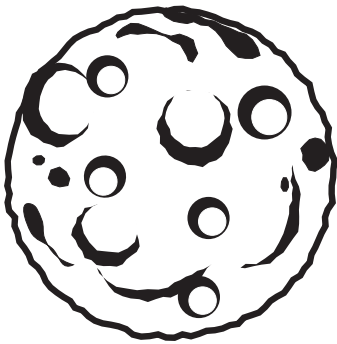


PUTTY BALLS

1. Count the putty balls with the child as you drop them in his lap.
2. For a target, use a piece of poster board, vinylized cloth, a circle of yarn, a circle on the reading stand, or the quilt, and have the child toss putty balls at it. Try to hit the bucket with putty balls. (Child will hear impact or signal when he has hit the bucket; you may signal success by ringing a bell.)
3. Sit on the floor facing the child and toss the putty balls back and forth. (This is also a good group activity.)
4. Scatter the putty balls on the floor. Have the child locate each ball and when he has located each ball, perform an activity such as sit on the ball, squish the ball, etc.
5. Play a body part game. Have the child place putty balls on various and appropriate parts of his body as directed. Then have the child place the putty balls in a pile. Ring a bell when he can build a pile without toppling any balls.

6. Outline the rim of a plastic laundry basket with fluorescent tape and have the child toss the putty balls into the basket.
7. Use heavy fluorescent poster board to create a target for tossing putty balls. One suggestion is to make a large clown face, cutting openings for mouth, nose, and eyes. The child may try to toss the putty balls through these openings.
8. Place fluorescent tape on the floor in different patterns, such as circle, square, X, or triangle. Have the child throw putty balls on those shapes as you call out the shape's name.

Perceptual Activities



MOON BALL

1. Place one or more empty Clorox bottles, painted cardboard tubes, or other unbreakable, lightweight items a few feet in front of the child. Have him roll the ball at the items to knock them over.
2. Place the ball in front of the child and have him gently kick it. When he can successfully coordinate his actions, play a variety of games involving kicking and returning the ball.
3. Line up the clutch ball, the moon ball, and a putty ball. Ask the child to point to the biggest/smallest/middle-sized. Scramble the balls and repeat.
4. Toss the moon ball from your right hand to left hand. Be sure to say aloud “right” and “left.” Then let the child do it. Be sure to continue to reinforce “right” and “left.”
5. In dim light, illuminate the moon ball with a flashlight. Talk about the moon. Let the child feel the bumpy surface of the ball. Take the opportunity to talk about the surface of the moon. Then turn out all the lights so the child can see the moon ball phosphoresce.

Perceptual Activities

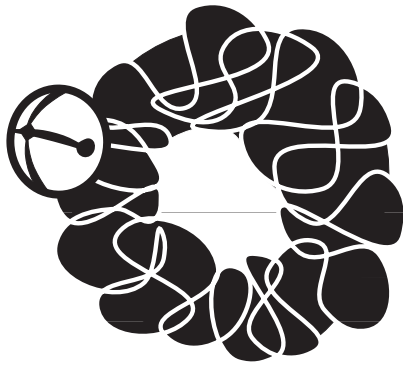


BUNJI BALL

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

1. Have the child hold the elastic loop and swing the bunji ball to knock over a Clorox bottle, shoe box, or similar item placed on the floor.
2. Have the child hold the elastic loop and bounce the bunji ball up and down striking the floor with it.
3. Make a cardboard or tape roadway on a tabletop or floor. Have the child use the ball as an imaginary plane or space-ship following the roadway.
4. Tape fluorescent shapes to the floor. Have the child bounce the ball on each shape as he names each one.
5. Sit the child down on the floor. Place the elastic over the child's left foot. Encourage the child to reach for the ball with his right hand. Switch elastic to the right foot and have the child use his left hand to grasp the ball.

Perceptual Activities

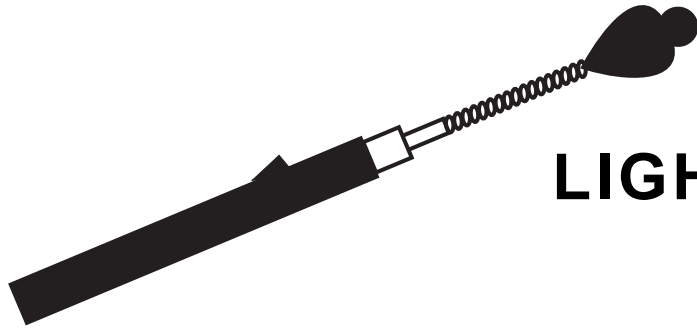


BELL BRACELET

1. Lay the bracelet on the floor with several different kinds of balls such as the rubber bunji ball, tennis ball, etc. Ask child to pick up a specific item.
2. Tie a string to the bracelet and hide it under one of two or three containers to encourage development of object permanence skills. Have the child pull the attached string to obtain the bracelet. Jingle the bell for reinforcement.
3. Touch the bracelet to various appropriate body parts. Have the child identify the body parts touched.
4. Place the bell bracelet on the child's left hand. Ask child to touch/point to various body parts as they are named. Ask the child to use the "bracelet hand" to pick up the moon ball.
5. Place the bracelet on a string. Hold one end of the string with each of your hands. Ask the child to move the bracelet back and forth across the string. This will allow him to track at his own speed.

6. Place one bracelet on your hand, one on the child's. Shake your bracelet in a pattern such as, 1-2-1. Have the child repeat the pattern using his bracelet.

Perceptual Activities



LIGHT-UP WAND

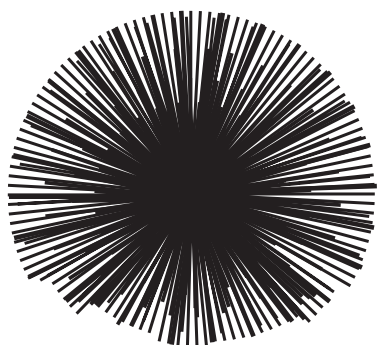
CAUTION: Always supervise the child closely while using the light-up wand. Take care to keep it a safe distance (12-18 inches) from the child's face. Take care to always put the light-up wand away so the child cannot retrieve it independently.

1. In a darkened room, hold the light-up wand in the child's central field of vision. Move the wand slowly to the upper left quadrant, upper right quadrant, lower right quadrant and lower left quadrant. Be sure to come back to center before moving into the next quadrant. Note the child's fixation and tracking behaviors.
2. Hold the tip of the light-up wand about 18 inches from the child's nose. Slowly move the wand to the right. Ask the child if he can see the tip as it moves. Note his response.
3. Give the light-up wand to the child, taking care not to let him

get it near his eyes. Spread out the foam shapes. Ask the child to touch each shape with the wand as you call out the shape's name to him.

4. With the child wearing the bell bracelet, shake the light-up wand at him three times. Ask him to clap the same number of times that you shake the wand. Repeat for two, four, five, etc. (You may need accompanying auditory cues at first and may use the other bell bracelet or a sock with a bell.)

Perceptual Activities



KOOSH BALL

1. Under dim light, hold the koosh ball in one hand at a distance of 2 feet from the child's face. Hold a flashlight above the koosh ball and let the light wash down over the ball from above. Slowly move the ball in a circle with a stirring motion, keeping the light above it. Check the child's responses to see if he is tracking the movement of the ball.
2. Under daylight or dim light conditions, give the child the koosh ball. Place the bucket 2 to 3 feet from the child. Light up the edge of the bucket by shining the flashlight on it. Ask the child to toss the koosh ball toward the light and into the bucket. Repeat this several times, noting if the child becomes more accomplished at hitting the bucket. Ring a bell when he succeeds
3. For this exercise you will need sheets of yellow, green, orange, white and black paper. Place two squares of paper on the floor, one yellow, one green. Ask the child to place the koosh ball on the yellow paper. Then add a sheet of white paper. Ask the child to place the koosh ball on some color

other than yellow. Then add another sheet of paper and repeat the process. Note whether the child can distinguish orange from green, and green from black. If the child seems unable to distinguish these pairs of colors from one another, repeat the exercise in a day or two. If he still cannot distinguish, repeat the exercise in about a month, taking care in the interim to educate him about the names of colors. Children who have poor color vision will not be able to do this exercise well, and for them the exercise should not be pursued.

4. Cut a circle, a triangle, and a square out of paper. Ask the child to place the koosh ball inside the circle. Then have him place the ball on the triangle. If he does not understand the word triangle, ask him to place it on the shape which has three sides. Continue until all the cutouts are used.

VISION DEVELOPMENT TEACHER-GENERATED IDEAS

Perception

1. Make large dot-to-dot ditto sheets using various shapes.
2. Use different sized baskets and boxes for sequencing, big-little, 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 balls to roll at pins.
6. Take a photograph of child and other familiar faces. Enlarge photo and glue it to a hard backing, then cut it into simple puzzle pieces.
7. Paint footprints onto sidewalk or draw on paper and paste to floor; have child walk in them. Light them with a flashlight if necessary.
8. Place colored circles or squares on a drum and have the child hit the yellow, red, blue, 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.
10. Take two simply-drawn pictures of an item in the child's environment and cut one into four pieces. Encourage the child to put pieces together to match whole.
11. Use brightly colored carpet squares 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 fingertraced. They can be made from ribbon, yarn, sandpaper, felt, etc. The more curves or angles, the more difficult the task.
13. 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 low vision children:

1. 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. Jumping Frog by Fisher-Price
2. Disney Poppin Pals by Gabriel
3. Happy Apple by Fisher-Price
4. Puzzle, crib & playpen by Fisher-Price
5. Tote 'n' Play by Playskool-Milton Bradley
6. Sound train set by Arco Industries
7. 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.Box 558
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 407
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 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. Shine light from behind

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 the 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

Plastic slinky: Climbs down stairs

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

Form board & jumbo pegboard made of wood, tactimat, or crepe rubber

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

Activity Panels: Series of raised shapes with grooved borders

Exceptional Play, Inc.

Box 1015

Lawrence, Kansas 66044

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

**OTHER SUGGESTED
FLUORESCENT MATERIALS
OR PHOSPORESCENT MATERIALS**

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

- 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 Sticks
- Glow-in-the-Dark Moon and Stars
- Glow-in-the-Dark Pumpkin

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Sensory Level Kit	1-08141-00
Perceptual Level Kit.....	1-08151-00
Sensory Activities Book, Print	7-08141-00
Perceptual Activities Book, Print.....	7-08151-00
Sensory Activities Book, Braille	5-08141-00
Perceptual Activities Book, Braille	5-08151-00
Sensory Activities Book, Audio Cassette	C-08141-00
Perceptual Activities Book Audio Cassette	C-08151-00