

MAKING GAMES
AND EQUIPMENT
FOR
YOUNG CHILDREN



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Cooperative Extension Service
Utah State University

**MAKING GAMES AND EQUIPMENT
FOR YOUNG CHILDREN**

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Many opportunities for enjoyment, learning, and interaction can be provided through the child's use of homemade games and equipment. Children love games and parents usually like to provide as many as they can. However, not only does the family budget often limit the quantity and quality of pieces of equipment that can be purchased, but in addition many store toys are limited in terms of their learning potential for children and parents. It is the intent of this booklet to suggest games that can be made from easily accessible and inexpensive materials. The focus is on games which contribute to conceptual and perceptual development, language development, and reading readiness skills through play. Most of the suggested games in this bulletin are not the type of games parents buy commercially; they do offer an intellectual challenge and enjoyment as the child plays with and becomes involved using them.

There is flexibility in the way the games can be played as well as the number of people that can be involved with a single game. Most of the games can be played alone, with an adult, or with other children; however, many rewards come from parents becoming involved with the child as he plays the games. Parents build a more positive relationship and closer rapport with their child when they take the time to enjoy teaching him the variety of ways to use the games, and talk with him about the basic concepts the games illustrate. They can also obtain feedback from children in order to be cognizant of what the child knows and how they can best continue to challenge him. The parent child relationship can be further strengthened by parents including the child in making the equipment and games. The child benefits not only from the enjoyment in working with Mom or Dad, but also from the opportunity to refine small muscle skills such as cutting, pasting, painting.

The examples described in this booklet are just a beginning. The possibilities and alternatives are unlimited. It is hoped that these suggestions ignite the reader's imagination and stimulate interest in further exploration, experimentation, and creation of homemade toys and games.



Illustrations by Joanne Conrad,
a student at USU.

SORTING AND MATCHING

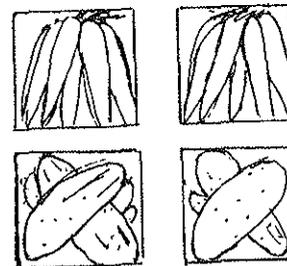
The young child's intellect may be challenged through making choices, discriminating likes and differences, and matching pairs. Sorting can deal with generalities (sorting shoes from coats and gloves), while matching deals with specifics and suggests that a person is probably dealing with two identical objects or with items which complement each other.

PAINT CHIPS: Get paint samples or paint chips from a paint distributor (duplicates of colors provide more alternatives). Mount each chip on a base and cover with clear contact if greater durability is desired. Sort chips into color groups. Match colors that are identical.

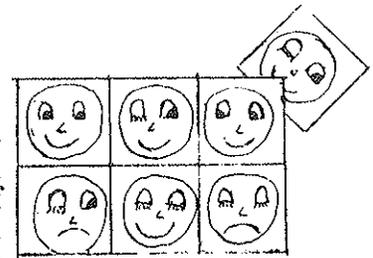
FABRIC SWATCHES: Place several different fabric swatches in a bag or box. Match the identical swatches.

BUTTONS: Sort buttons according to size, color, shape, number of holes, method of attachment to material, or other identifying marks. Match identical buttons.

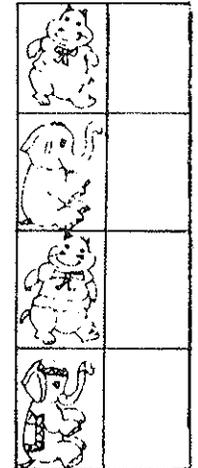
SEED PACKAGES: After spring planting, let children sort or match the seed packages. Cut words from package, mount on base, and cover for durability.



Matching cards may be transparent or non-transparent. Non-transparent: Attach item onto or between acetate, clear contact paper, plexiglass or a combination of these. When a child places a transparent card on top of an item on the lotto board, he can immediately see if the two match exactly.



Several variations of a lotto board, with the matching cards, may be made so that two or more children may play the same game together. The cards for all the lotto boards are mixed together and turned face down. As a card is turned face up, each child will check his board. The child with the identical match is given the card to put on this board.

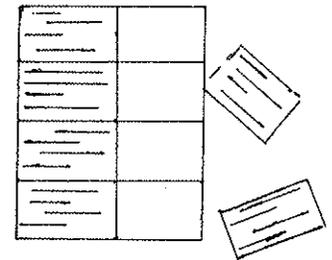


Lotto games are useful in teaching concepts such as size, shape, color, numbers, letters categories, positions, sets, textures.

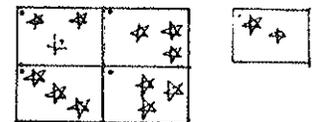
PERCEPTION

FACES: In each section of lotto board, draw a simple face. Each face should differ slightly.

HOUSES: Each house on the lotto board should basically be the same with slight differences in the placement of the window, chimney, and door. For example, one house might have a shorter chimney, the second house exactly the same except the chimney's longer, the third house the same except the chimney's missing.



ANIMAL CARDS: Cut animals from old animal rummy games. Make slight changes in the animals in each set (for example, if there is a set of animated hippopotamuses, cut the tail from one hippo, leave the tail on the second hippo). After slight differences have been made in each animal set, mount on lotto board. Be sure to keep a matching card.



PERCEPTION OF SETS

LINE LENGTHS: In each section of the lotto board, arrange sets of bars or lines. Vary lengths of each set.

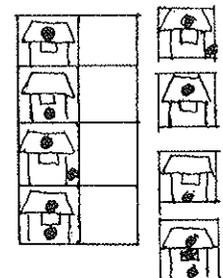
STARS: Arrange sets of star stickers in each section of lotto board in different orders. Transparent matching cards work especially well with this lotto.



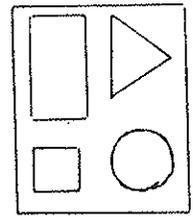
SHAPES: Arrange sets of shapes in different combinations and arrangements.

POSITION

TABLE AND BALLS: Draw a table in each section of the board. Draw one or two balls (circles) in different positions in relationship to each table. This lotto provides the opportunity to discuss the meaning of such prepositions as next to, on top of, underneath...



CLOTHING VARIATIONS: Clothing variations could include boards with winter clothing and summer clothing, clothing which comes in pairs, hats for different sexes or occasions.

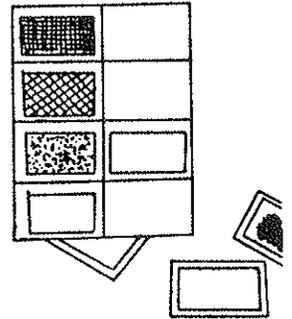


SHAPES

Arrange four or more basic shapes on a board.

COLOR

In each section of the lotto board, place a shape which is a different color. The shape should remain constant. A basic board would consist of the three primary colors. Other boards would have the primary and secondary colors or shades of color.



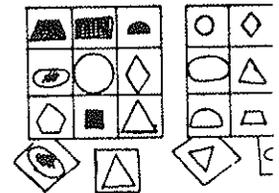
PAINT CHIPS: Paint samples can be arranged on boards to show minor variations in shades, contrasts in color, or sequence shading.

TEXTURE

Arrange different textures (such as sandpaper, and fur) on a board and provide matching textures.

OTHER VARIATIONS

COMBINATIONS: Lotto games can be combined so that one board may deal with two or more concepts. If a board has each shape a different color, a child will deal with those two concepts. Size can be combined with color, shape with size, texture with numerals.

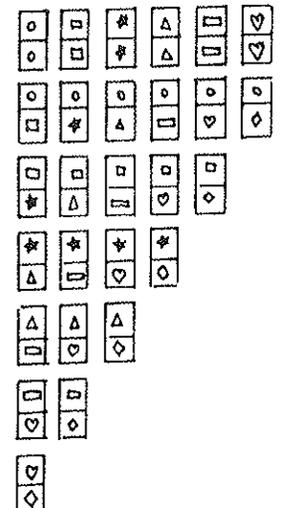


MATCHING: When making the matching cards for the lotto board, make duplicate sets of cards. Without the lotto board, children can match the cards to each other. For example, if making the face lotto, make a duplicate set of matching cards. At times one set will be used with the lotto board. At other times, the two sets of cards can be matched without the board.

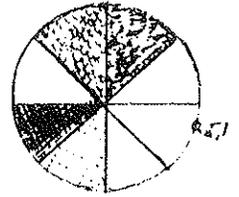
DOMINOES

Dominoes provide another variation of a matching game. Each domino block has two items on it. The item on one half of the block is to be matched with an identical item on another domino block. Place the two blocks so that the ends with the identical items are touching in some way.

The blocks may be any size, but should be approximately twice as long as they are wide. (A domino which is 4-inches long should be about 2-inches wide.) Shown is a guide for making dominoes. Regardless of what items or pictures are used on the domino, this same guide, which allows for seven different items, can be used.

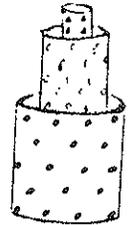


COLOR PIE: Using masking tape or another type of marker, section a circle into a pie ready for cutting. Color each section of the pie a different color. Color the closed ends of wooden spring clothes pins so that there is one clothes pin to match each pie section. Match the colors by clipping the clothes pin onto the edge of the pie piece it matches.



SIZE

Children can develop concepts of size through play. Since size is relative, parents should encourage children to make comparisons and should use the terms larger and smaller instead of large and small. Perhaps the main task in most size toys is to seriate or order the objects in a sequence from the smallest to the largest.

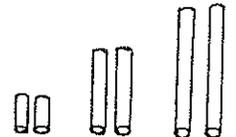


STACKING CANS: Save cans or boxes of various sizes which will fit inside each other arranged according to size. These can be painted or covered.

SERIATED SHAPES: Cut several sizes of one shape from base material, felt, pellen, or sandpaper. Shapes can be seriated from smallest to largest and comparisons between sizes can be made.



DOWELS: Cut one dowel or several dowels of the same diameter into different lengths. These can be used for matching and ordering.



SHAPE

Initially, to help a child develop shape concepts, parents may wish to develop games around the basic shapes of a circle, rectangle, and triangle and gradually add squares, pentagons, polygons, rhombus (diamond). Shapes other than geometric shapes (butterfly, key, heart, and star) add interest and contribute to concept development.

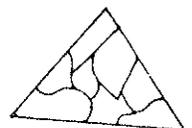
FLASH CARDS: Mount a series of shapes on cards to be used for matching and labeling.

TOUCH SELECTION: Make three-dimensional shapes. Put shapes in a bag. Identify the shape by touching it and without looking at it.

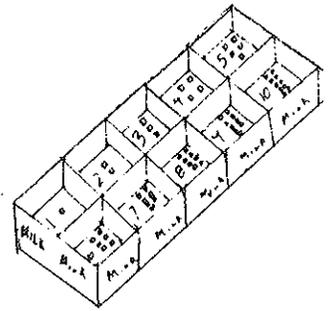
TRACING: Provide shapes cut from bases or use household items such as boxes, jar lids, cans. Let children trace around the shape with finger, pencil, or crayon.

PUZZLE: Cut a larger shape from a base. Cut the shape into a puzzle.

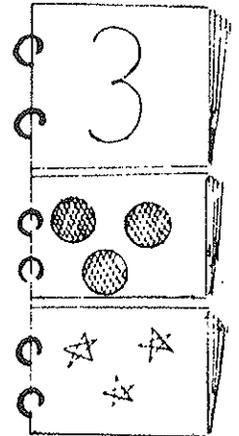
SIZE & SHAPE: On a base, draw shapes of various sizes. Draw the smaller shapes inside larger shapes (smaller triangles inside the progressively larger triangles). Cut very thin dowels to fit the lengths of the lines of the shapes.



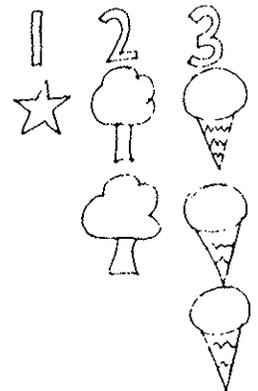
MILK CARTON SORTER: Cut ten half-pint milk cartons to a two-inch height. Attach cartons into two rows with five cartons in each row. Cut cards to fit in the bottoms of the cartons. On the right half of the card, attach a numeral. Cut circles, squares, or other shapes from a texture such as sandpaper. Place the appropriate number of shapes next to each numeral. Place one card in the bottom of each carton. Child can count the number of textured shapes needed to make the numeral. Make similar cards which have only numerals, or only items, or numerals with items in a different arrangement than the shapes in the box. Match these cards into the correct box. Count the proper number of items (example: pebbles, marbles) into each carton.



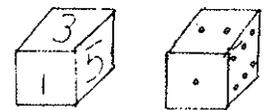
NUMBER BOOK: Using a base material, cut one page for each number. Divide each page into thirds. On the top third of the page, place a numeral. On the middle third, arrange the corresponding number of shapes (such as circles) cut from felt and on the bottom third, arrange a corresponding number of objects such as stars, apples, stickers, and animal stickers. Cut the pages in thirds and arrange the numerals in consecutive order. The middle sections can be mixed together, and the last section can be mixed together so that the numbers are not in proper order. Place an uncut cover sheet on the front and back and hook the book together with rings. As the child opens to a numeral on the top third, he will thumb through the shapes on the middle section to find the correct match to the numeral, and then thumb through the bottom section and again find the correct number of objects to match the numeral.



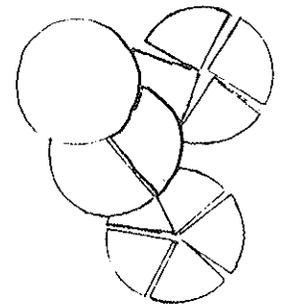
FELT NUMERALS AND OBJECTS: Cut numerals from felt. Cut shapes from felt. Sequence the numerals on a flannel board and place the correct number of shapes under each numeral. Use these same numerals to show two and three-digit numbers. Also, use the shapes to show the results of adding one or more to a group, and vice versa.



NUMBER BLOCKS: Cut two cubes from foam rubber, wood, styrofoam. On each side of one cube put a numeral. On the second cube, place geometric shapes representing number sets. The numeral on one cube will be matched with the corresponding number of shapes on the second cube.



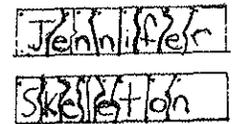
CIRCULAR FRACTION SET: From a base, cut six circles about six inches in diameter. Cover each circle with a different color contact paper, paint. Leave one circle uncut. Cut one circle in half, another circle in thirds, another in fourths, one in sixths, and the last in eighths. Place the whole circle on the bottom, the two half circles on the whole circle, and so on. As children work with the pie they will begin to see, for example, how many fourths are in a half, how many sixths are in a third.



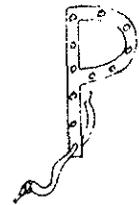
PICTURE PUZZLES: Attach a letter to the upper portion of a card. Place a picture which begins with that letter on the lower portion of the card. Cut an irregular line between the two to form a two-piece puzzle.

BOOK: Make an alphabet book. On each page place a letter in the upper corner or at the top of the page. Leave space on the page for the child to cut pictures from magazines, catalogs and match with the appropriate letter.

NAME PUZZLE: The letters in a child's name are some of the first letters he learns. Print a child's name on a base. Cut irregular lines between the letters creating a puzzle piece of each letter. Place a red dot in the upper left corner of each piece of the first name and a different color dot in the upper left corner for each piece in the last name. The name should start with an upper case letter and print the rest of the name in lower case letters.



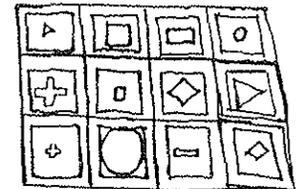
LACING: Cut letters from heavy base. Punch several holes in letters and thread lace in and out to become familiar with letter shapes.



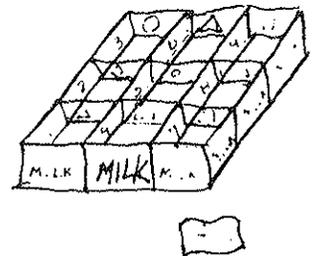
SMALL/LARGE MUSCLE TOYS

Many toys can be made for simple enjoyment while providing exercise for large and small muscles and contributing to conceptual-perceptual development.

FLOOR MATRIX: Sew a series of transparent pockets of clear vinyl, visquene or leather-like vinyl onto a flexible but heavy base such as oil cloth or vinyl. Make sets of cards which will fit into the pockets. Sets could deal with color, shape, numerals, size and/or combinations. Put one set of cards into the pockets. Sing a song or provide other music while children march around the mat. When the music stops, children must jump onto one of the pockets, and must name the shape, numeral, color, or other objects in the pocket they have stepped on. Make a duplicate set of cards which will fit into children's hands. Give each child a card. When the music stops, the child must jump onto the pocket which matches the card in his hand.



BOX TOSS: Connect a series of small boxes (cut milk cartons work well). On the inside walls of each box attach sets of items such as sets of shapes, numerals, colors. Pre-select which box a bean bag is to be tossed into by naming or otherwise describing the item attached to the wall of the box. By covering the inside of the boxes with contact paper, items can be scotch-taped onto sides of the box and removed easily for new items.



STRINGING: Items for stringing can include buttons, empty thread spools, macaroni, old beads, washers and nuts from bolts, circle-shaped cereal, cut drinking straws. String onto thread, string, yarn, fishline, or dental floss.

LANGUAGE

All the games and toys discussed in this booklet are tools for language development when an adult is involved in the usage of the toy. Adults provide proper names for shapes, numerals, letters, sizes. Discussions center around words that describe sounds, textures, smells, and the child's vocabulary and understanding increase.

PEOPLE BOX: Cut pictures of people's faces from magazines and books. Save them in a box. Discuss the expressions on the faces, emotions, races, facial features and ages.

BOOKS: Cut pictures from post cards, photographs, and catalogs. Arrange these into inexpensive scrapbooks, albums, or binders. Pictures can be talked about or parent and/or child can make up stories to go with the pictures.

PUPPETS: Stick Figures: Attach figures to the end of a straw, tongue depressor, popsicle stick, or dowel. **Paper Sack:** Cut facial features from paper, felt and attach to the bottom of a paper bag. A body can be attached to the rest of the bag. **Cone:** Paint a large empty string or thread cone. Cut a mouth in a styrofoam ball and glue the ball to a dowel. Cover the ball and dowel with fabric wide enough to fit over the ball and twice as long as the cone. Attach bottom of fabric to middle of dowel. Stick dowel through hole in spool, and attach knob to bottom of dowel. Push dowel up and down through the cone to make the puppet go up and down. **Sock:** Pull sock over hand. Glue, sew, or paint facial characteristics onto the toe of sock. **Vegetable:** Force potato, turnip, or carrot onto a popsicle stick or dowel. Pin, glue, or paint characteristics onto the vegetable. **Pingpong Ball:** Cut an X out of a ball. Place piece of lightweight fabric on finger. Cover the cut area of the ball with sturdy glue. Force ball at the X onto the fabric on finger. While the glue is drying, color or paste face on puppet. **Paper Plate Marionette:** Attach a small paper plate to a larger plate. Connect accordion-pleated paper strips to large plate to form arms and legs. Attach string to top of puppet. **Paper Plate Hand Puppet:** Staple the insides of two paper plates together. Cut hand hole. Decorate one or both sides of plate with desired features. **Cardboard Cylinder:** Stick a cardboard cylinder from paper towels, toilet paper, over fingers. Decorate with desired features.

