DECANOMIAL SQUARE

MATERIALS: 10 squares increasing in size from 1 cm^2 to 10 cm^2 each a different color with corresponding rectangles in the same color (except the smallest square which has no rectangles in the same color (except the smallest square which has no rectangles) Board 60 cm^2

AIMS

DIRECT AIM: a) Building a Square

b) Refinement of visual discrimination

INDIRECT AIM: Preparation for mathematics

PRESENTATION

a) Take the child with you to the shelf and name the material.

b) Ask the child to bring it to the board which is placed on a mat.

c) Take all the squares out and leave them randomly on the board.

d) Build a pyramid starting with the largest square to the smallest square on the bottom right corner of the board.

e) Pick up the red square, place it on the left corner of the board.

f) Place the green square, diagonally in such a way that the bottom right corner of the red square is aligned with the top left corner of the green square.

g) Take out the corresponding rectangles and place them to fill the square.

h) Pick up the rectangles and place it randomly.

i) Pick up the largest rectangle, find its place and place it there.

j) Draw the child's attention to the fact that the square is growing.

k) Go on like this and gradually involve the child in the activity.

l) Put the material in the box, neatly in order and invite the child to work with the decanomial square.

DECANOMIAL SQUARE

EXERCISE 1- The child's own activity as shown in the presentation

EXERCISE 2- Removing one color (shrinking the square)

a) After the child has built the Decanomial square

b) Ask the child to remove the white squares (one color)

c) Reconstruct the square, show the gap and start filling it by moving the next color.

d) Eliminate the rectangles that don't fit

e) Once that's done, encourage them to remove another color and go on.

EXERCISE 3- Making squares

a) Take out the red square, place it on top.

b) Take out the green square and place it right below the red one.

d) Superimpose the green one to the newly formed square.

e) Take the pink square, take the largest pink rectangle, and look for a corresponding rectangle to make a square.

f) Go on like this until all the squares are formed.

EXERCISE 4- Building Binomials

a) Take the largest square (golden)

b) Start with the red and place it on the square

c) Lets fill the square using squares and rectangles.

d) Isolate(slide) the top square and continue with the next set of rectangles.

e) Involve the child after a point, and invite the child to construct the binomial.

EXERCISE 5- Building Trinomials

DECANOMIAL SQUARE

a) Isolate the largest square (Golden Square)

b) Start with the red square and place it on the top of the golden square such that the top left corners are superimposed

c) Now place the green square diagonally to the red square.

d) Take another square that fits the gap and fill in the rest of the gaps with the corresponding rectangles.

e) Isolate the superimposed set of squares and rectangles and place it aside

f) Continue with the next set of squares and rectangles of different colors

g) Involve the child in between and after a point invite the child to construct squares.

Note: trinomial and binomial squares can be created using squares of other colors too

CONTROL OF ERROR: Child's visual perception

LANGUAGE: NONE

AGE: 4 Years

DECANOMIAL SQUARE

ILLUSTRATION