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## Addition Snake Game

### Age

- 6 years

### Language

- golden snake

### Control of Error

- teacher
- colored bead-bars do not match the quantity of golden bead-bars

### Material

- a box containing colored bead-bars for the numerals one to nine; eight to ten bars for each number
  - one - red
  - two - green
  - three - pink
  - four - yellow
  - five - light blue
  - six - lavender
  - seven - white
  - eight - brown
  - nine - dark blue
- a box with a set of black and white bead-bars; bead-bars through five are black; bead-bars six through nine are black for the first five beads and white for successive beads (allowing for ease in identifying the quantity on the bead-bar)
- a box of ten bead-bars
- a notched strip of cardboard
- a box of golden bead-bars

### Aim

#### Direct

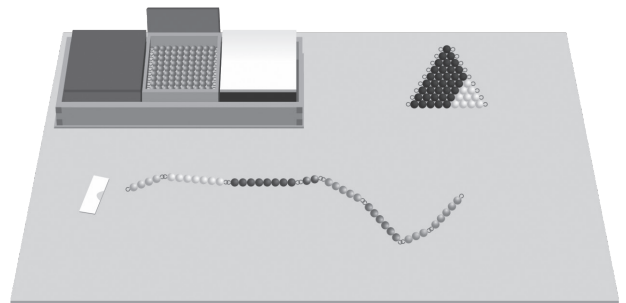
- aid the child in the memorization of the addition facts

#### Indirect

- reinforce all the possible number combinations that can make ten
- reinforce essential number combinations in addition

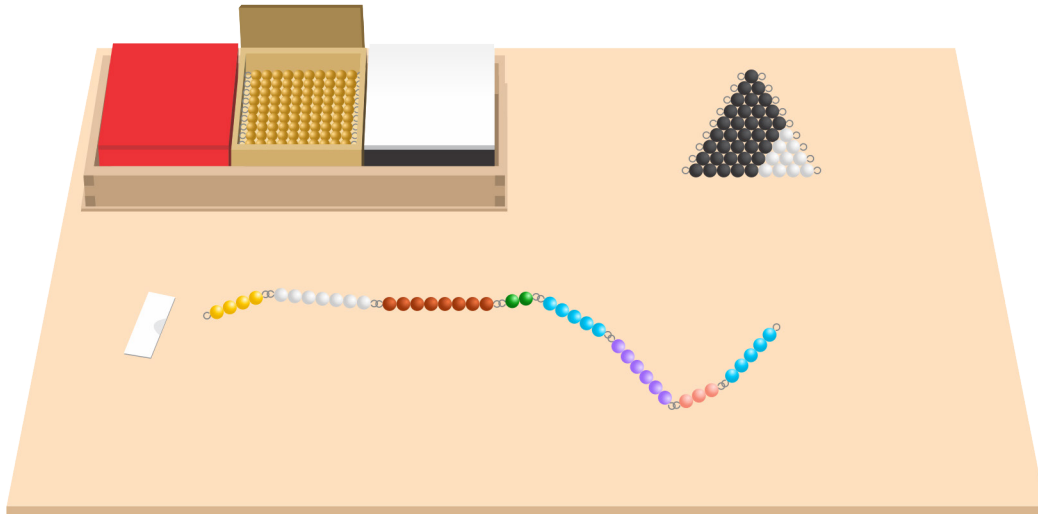
### Note

When adding any set of beads, if the sum is not ten then the black and white beads must be used. If the black and white beads are used then the next set of beads to be added will contain the black and white bar and a colored bead-bar.

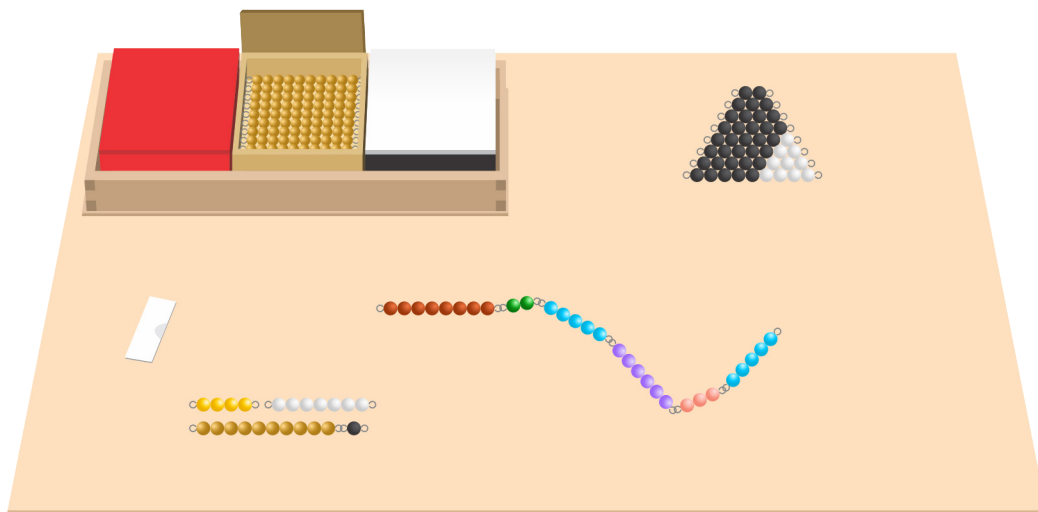


## Presentation

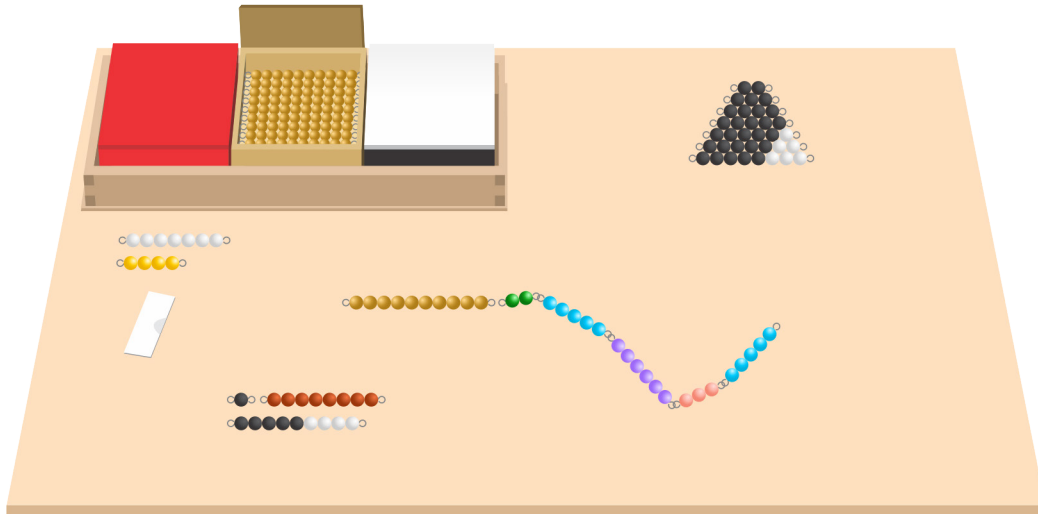
1. Remove the black and white bead-bars and place them to the upper right of the work area in graded order.
2. Place the box of golden bead-bars in the upper left of the work area.
3. Select an arrangement of colored bead-bars and lay them “snake-wise” across the work area. Say dramatically, "we are going to turn the colorful snake into a golden snake."



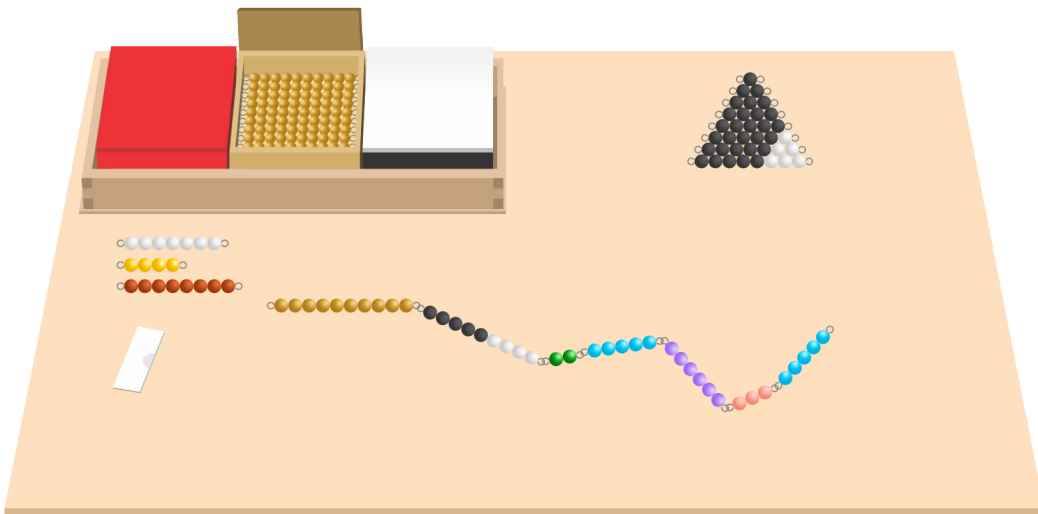
4. Tell the child to take the first two bars and move them away from the snake. The beads should be added without counting:  $4 + 7 = 11$ .
5. Place a golden ten and the black one in the snake.



6. Move down the next two bars:  $1 + 8 = 9$ .

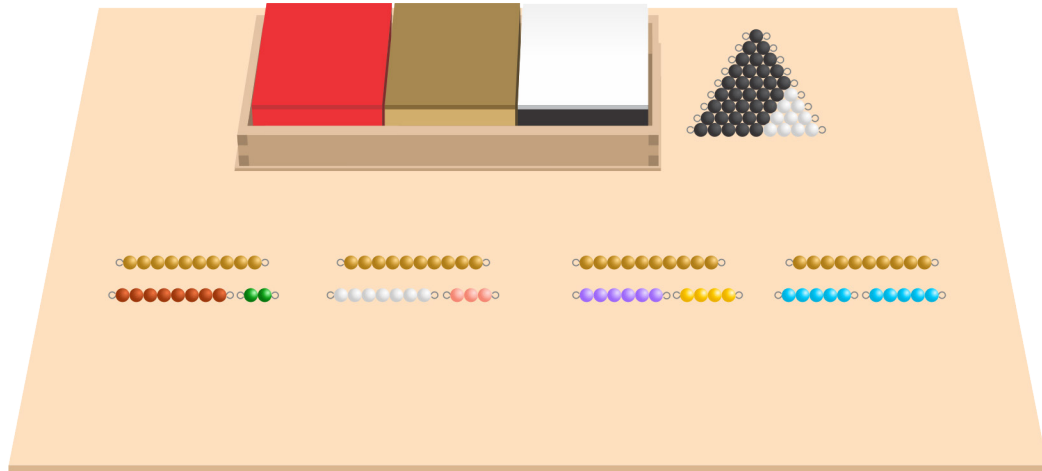


7. Exchange the one black bead and the eight bead for a black and white nine.



8. Continue in the same way to the end of the snake, each time adding the black or black and white bead to the next colored bead, add from memory, then exchange the beads for golden beads and/or black and white beads.

9. Verification: "Let's see if I have added correctly." Line up the ten-bars to the left. Line up the colored bead-bars to the right, grouping like colors together. Next to each ten place a combination of colored bars that will add up to ten. When a one-to-one correspondence has been made between the colored bead-bars and the ten-bars, the verification is complete.



## Bead Bars for the Memorization of Addition

### Age

- 6 years

### Language

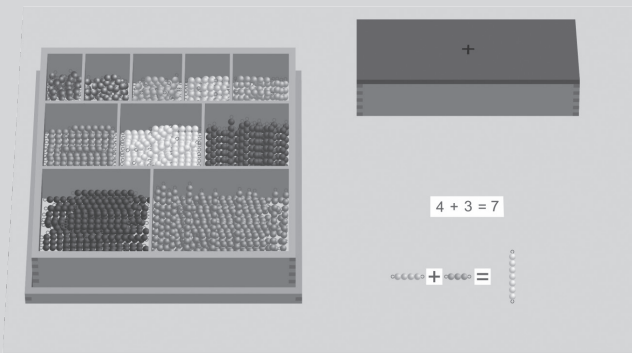
- addends, sum

### Control of Error

- the child's memory
- Addition Control Chart 1

### Material

- a box with ten compartments containing twenty bead-bars in each compartment 1 - 10
- labels with + and = signs
- prepared addition slips
- pencil
- math notebook



### Aim

#### Direct

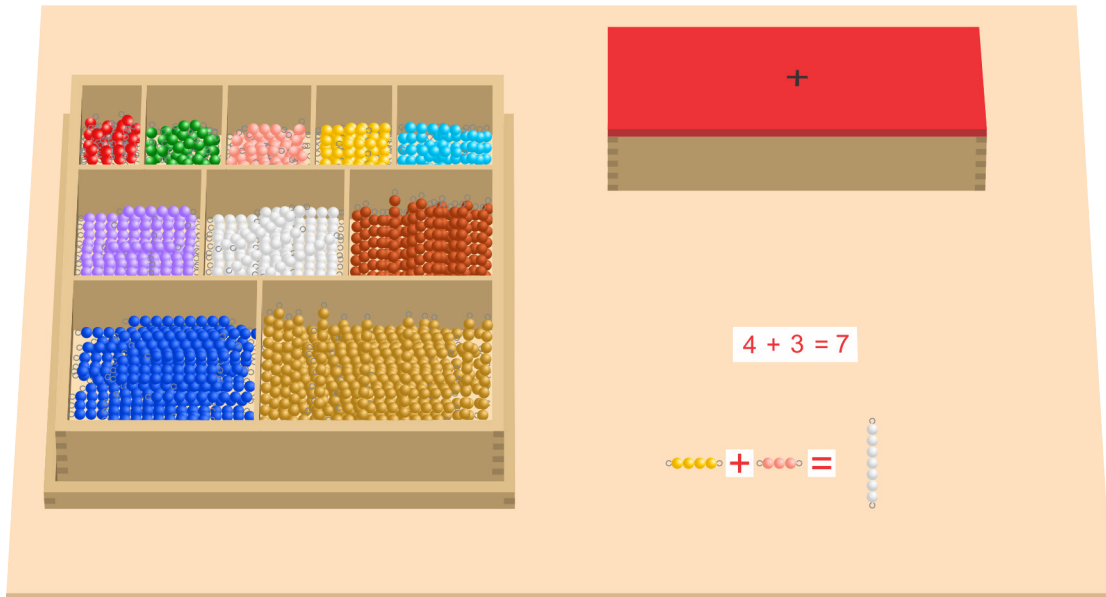
- aid in the memorization of the addition facts

#### Indirect

- reinforce the essential combinations of addition

## Presentation 1

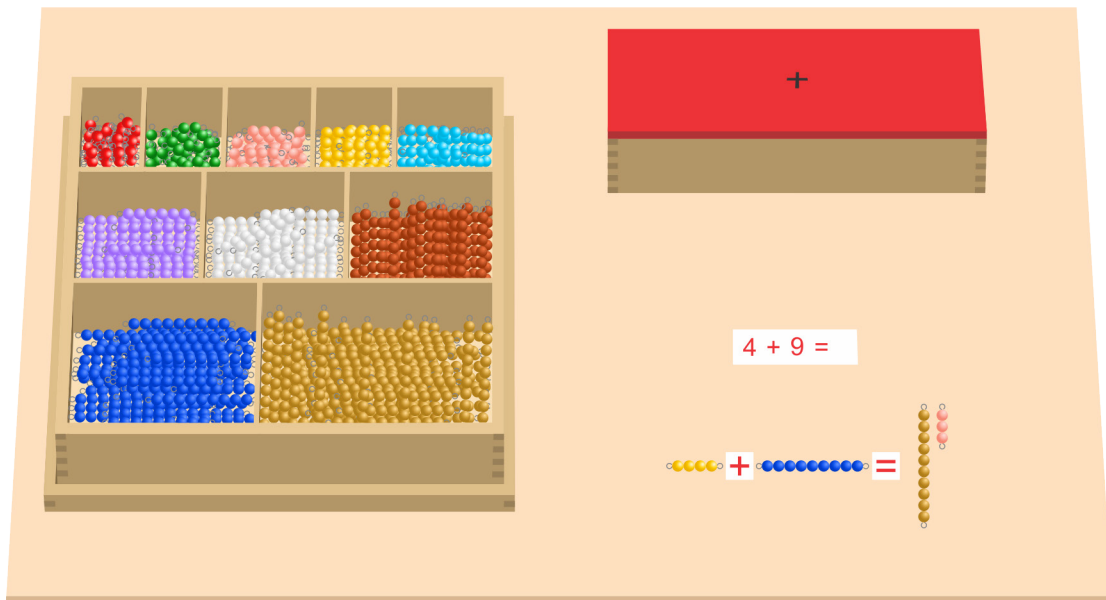
1. Select a prepared slip with an addition equation that will sum to a total of less than ten:  
 $4 + 3 = \_.$



2. Select the appropriate bead-bars to represent this equation and place them horizontally with the + and = labels placed appropriately between the bead bars.
3. Sum this quantity from memory. Select the appropriate beads to represent the sum.
4. Place the sum beads vertically after the = sign.
5. Record this equation in the child's math notebook.
6. The child can continue with the prepared slips.

## Presentation 2

1. Select a prepared slip with an addition equation that will sum to a total of more than ten:  
 $4 + 9 = \underline{\quad}$ .



2. Select the appropriate bead-bars to represent this equation and place them horizontally with the + and = labels placed appropriately between the bead-bars.
3. Sum this quantity from memory. Select the appropriate beads to represent the sum.
4. Place the sum beads vertically after the = sign.
5. Record this equation in the child's math notebook.
6. The child can continue with the prepared slips.