

# The Canadian Montessori Teacher Education Institute

## Activities Leading to Mathematical and Logical Mind

Daniel Juras, Ph.D. Master Teacher



# MONTESSORI MATH

## LEVEL I

### QUANTITIES and SYMBOLS - 1 to 9 & 0

1. **QUANTITIES:** Number Rods
2. **SYMBOLS:** Sandpaper Numerals
3. **COMBINATION:** QUANTITIES & SYMBOLS
  - a) Loose Symbols Vs Fixed Quantities (Number rods + number cards)
  - b) Loose Quantities Vs Fixed Symbols (Spindle Box)
  - c) Loose Symbols & Loose Quantities (Numbers & Counters)
  - d) Memory Game (Marbles with number cards)
  - e) Short Bead Stair
  - f) Making Ten
4. The Snake Game

## LEVEL II: INTRODUCTION TO THE DECIMAL SYSTEM

### 1. QUANTITIES

- Golden Beads: 1, 10, 100 And 1000
- Counting Through-Golden Beads
- Bird's Eye View / Great Display
- "Playing Bank"
- "House-Keeping"

### 2. OPERATIONS WITH THE GOLDEN BEADS

- Static Addition
- Static Multiplication
- Static Division
- "House-Keeping"
- Dynamic Addition
- Dynamic Multiplication
- Dynamic Division

### 3. SYMBOLS

- Numerals: 1, 10, 100 And 1000
- Symbols: Counting Through-Numerals
- Symbols: Bird's Eye View / Great Display

### 4. COMBINATION: QUANTITIES AND SYMBOLS

- Combination: Quantities and Symbols: Bird's Eye View/Great Display
- "Playing Bank" from Quantity to Symbols
- Formation of a Large Number
- "Playing Bank" from Quantity to Symbols and from Symbols to Quantities
- Static Addition
- Static Multiplication
- Static Subtraction
- Static Division

- “House-Keeping”
- Dynamic Addition
- Dynamic Multiplication
- Dynamic Subtraction
- Dynamic Division

## **5. THE STAMP GAME**

- Static Addition
- Dynamic Addition
- Static Multiplication
- Dynamic Multiplication
- Static Subtraction
- Dynamic Subtraction
- Static Division
- Dynamic Division

## **6. DOT GAME**

- Static Addition
- Dynamic Addition
- Static Multiplication
- Dynamic Multiplication
- Static Subtraction

## **7. SMALL BEAD FRAME**

- Static Addition
- Dynamic Addition
- Static Multiplication
- Dynamic Multiplication
- Static Subtraction

## **LEVEL III: QUANTITIES AND SYMBOLS: 11-99**

### **1. SEGUIN BOARD: 11-19 (TEEN BOARDS)**

- Quantities from 11 to 19
- Symbols from 11 to 19
- Combination quantities and symbols from 11 to 19

### **2. SEGUIN BOARD: 10 - 90 (TEN BOARDS)**

- Quantities from 10 To 90
- Symbols from 10 To 90
- Combination Quantities and Symbols from 10 to 90

### **3. SEGUIN BOARD: 11 - 99 (TEN BOARDS)**

- Quantities from 11 to 99
- Symbols from 11 to 99
- Combination of quantities and symbols from 11 to 99

#### **4. SEQUENCE BOARD OF 100**

#### **5. SEQUENCE CHAIN OF 100**

#### **6. COLORED BEADS**

- Addition with recording with the Colored Beads
- Multiplication with recording with the Colored Beads
- Subtraction with recording with the Colored Beads

#### **7. ADDITION STRIP BOARD**

#### **8. SUBTRACTION STRIP BOARD**

#### **9. MULTIPLICATION BOARD**

#### **10. DIVISION BOARD**

#### **11. BEADS CHAINS-SKIP COUNTING**