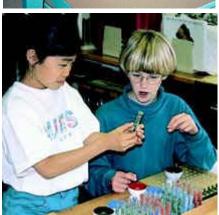
# The Canadian Montessori Teacher Education Institute

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# ELEMENTARY MONTESSORI MATH ALBUM























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# ELEMENTARY MONTESSORI MATH ALBUM

#### Table of contents

#### WORK to do with 1 to 10

- Snake Game
- Associativity Property
- Dissassociativity Property

#### LINKAGE to the DECIMAL SYSTEM

#### 1. QUANTITIES

- Golden Beads: 1, 10, 100 And 1000
- Counting through-Golden Beads
- Bird's Eye View / Great Display

#### 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

- From Quantity to Symbols
- Formation of a Large Number
- From Symbols to Quantity
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- Static Subtraction
- Static Division
- Dynamic Addition
- Dynamic Multiplication
- Dynamic Subtraction
- Dynamic Division

#### 5. THE STAMP GAME

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

#### 6. PEGS GAME

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

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

#### 8. SMALL BEAD FRAME

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

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

# 9. SEGUIN BOARD: 11-19 (Teen Boards)

Ouantities from 11 to 19

Symbols from 11 to 19

Combination Quantities and Symbols from 11 To 19

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Quantities from 10 to 90

Symbols from 10 to 90

Combination Quantities and Symbols from 10 to 90

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Symbols from 11 to 99

Combination Quantities and Symbols from 11 to 99

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#### 13. ADDITION TABLES

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Addition Tables # 1 and # 2

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Addition Table # 6 (Blind Table)

Summary of Addition

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Summary of Subtraction

#### 15. MULTIPLICATION TABLES

Multiplication Table # 1

Multiplication Table # 2

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Summary of Multiplication

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Summary of Division

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Symbols

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#### 18. LONG MULTIPLICATION with the CHECKER BOARD

#### 19. LARGE BEAD FRAME

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Notation of numbers excluding zeros

Notation of numbers including zeros

Notating complex numbers with no zeros

#### 20. LONG MULTIPLICATION WITH THE LARGE BEAD FRAME

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#### 22. FLAT BEAD FRAME

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#### 24. FRACTIONS

Presentation of addition of fractions with the same denominator Presentation of subtraction of fractions with the same denominator Presentation of division of fractions by a whole number

#### 25. PROPER, IMPROPER, MIXED AND APPAERENT FRACTIONS

Apparent Fractions Improper Fractions Mixed Fractions

#### 26. COINAGE

#### 27. ROMAN NUMERALS

#### 28. BINOMIAL CUBE

Presentation # 1 (sensorial) Presentation #2 (mathematical)

#### 29. TRINOMIAL CUBE

Presentation # 1 (sensorial) Presentation #2 (mathematical) Story of the Three Kings

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Horizontal Presentation
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Commuted Presentation
Numerical presentation

#### 31. SQUARING

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#### 32. MULTIPLES

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#### 33. LEAST COMMON MULTIPLE

#### 34. FACTORS

#### 35. PRIME FACTORS

#### 36. REDUCTION OF NUMBERS TO THEIR PRIME FACTORS

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# 38. LONG GROUP DIVISION

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Presentation with zero in the quotient

Presentation with zero in the divisor

Presentation with zero in the units of the divisor

#### 39. DECIMAL FRACTIONS

Presentation of quantities

Presentation of symbols

Presentation of combination of symbols and quantities

Presentation of reading quantities

Presentation of operations with decimal fractions / addition

Presentation of operations with decimal fractions / subtraction

Presentation of operations with decimal fractions / multiplication

Presentation of operations with decimal fractions / multiplication of a fraction by a fraction

Presentation of operations with decimal fractions / division

#### **40. BEAD CHAINS - SKIP COUNTING**