

# The Sequence & Order of Math Materials

*in the Children's House (Ages 3 to 6)*

Usually when a Montessori consultant comes to visit a school, the first thing s/he says is: "If it isn't in your albums, take it off your shelves." I think there is great wisdom in that statement. It is easy for our focus to shift away from the core essentials and onto things that have wandered into our space.

Here is a list from my albums of what is physically meant to be on our math shelves. You may find some variations from your training. Go with what is in your albums unless you doubt their clarity. But if you stray from your training, you must prepare yourself to use all of the materials and present them *in the order* you have them arranged on the shelves. The children absorb this external order. They will come to expect to receive presentations according to this order. It is critical to their full development.

Remember that the order always goes from left to right, top to bottom. Begin on the top left of the shelf and proceed accordingly.

I have grouped the information by major acquisition area from concrete to abstract. There are options in how you choose to set up your shelves after the Counting from 0 to 10 materials. At that point, you can either proceed directly to counting beyond 10 or into the operations. This is because, of course, this work happens simultaneously. Once the child has mastered the concrete and abstract from 0 to 10, she is ready to count higher and to apply that knowledge with the mathematical operations. Remember that it is through application that we truly come to master knowledge. Thus, both of these branches of learning must occur simultaneously in order to solidify the earlier learning from 0 to 10. Do not fall into the trap of only teaching addition. It is essential for the child to be grounded in all four operations via the bank game and the stamp game (at a minimum) at the Children's House level.

## Children's House Math Sequence

### Shelf Unit #1: Counting 0 to 100

- Shelf 1
  - Number rods (concrete)
  - Sandpaper Numbers (symbol)
  - Number Cards (concrete & symbol)
- Shelf 2
  - Spindle Boxes (concrete & symbol)
  - Cards and counters (concrete & symbol)
  - Memory game of numbers (concrete & symbol)
- Shelf 3
  - Teen Beads (concrete)
  - Teen Boards (symbol)
  - Ten Boards with Beads (concrete & symbol)
  - Hundred Board (if you use it)

Bead Cabinet: Counting to 1,000

Shelf Unit #2: Concrete Operations (Decimal System)

- Shelf 1
  - Golden Beads Presentation Tray (one of each: Thousand Cube, Hundred Square, Ten Bar, Unit Bead)
  - Decimal Cards Presentation Tray (one of each card: 1,000; 100; 10; 1)
  - Golden Beads Nines Tray (one Thousand Cube and one of each: Hundred Squares, Ten Bars, Unit Beads)
  - Decimal Cards Nines Tray (one 1,000 card and cards for 100 to 900, 10 to 90, 1 to 9)
- Shelf 2
  - Bank Game Bead Supply (multiples of each: Thousand Cubes, Hundred Squares, Ten Bars, Unit Beads)
  - Three trays (each with a cup to hold the unit beads)
- Shelf 3
  - Two Stamp Games (concrete, symbol, & writing)
  - Stamp Game Paper with writing utensils
  - Dot Game (symbol & writing) with writing utensils

At this point, you may choose the sequence that works best for you. Some teachers prefer to order their materials by operation while others prefer to proceed in the likely order of presentation. Here are two alternate arrangements for your consideration.

Shelf Unit #3 Option 1 (By Operation): Bridge to Abstraction

- Shelf 1
  - Positive Snake Game
  - Addition Strip Board
  - Addition Finger Charts
- Shelf 2
  - Multiplication Bead Box
  - Multiplication Bead Board
  - Multiplication Finger Chart
- Shelf 3
  - Negative Snake Game
  - Subtraction Strip Board
  - Subtraction Finger Charts
- Shelf 4
  - Unit Division Board
  - Division Finger Charts
  - Test Tube Division (Racks & Tubes)
  - Bead Frames

Shelf Unit #3 Option 2 (By Likely Presentation): Bridge to Abstraction

- Shelf 1
  - Positive Snake Game
  - Multiplication Bead Box
  - Negative Snake Game
  - Unit Division Board
- Shelf 2
  - Addition Strip Board
  - Multiplication Bead Board
  - Subtraction Strip Board
- Shelf 3
  - Addition Finger Charts
  - Multiplication Finger Chart
  - Subtraction Finger Charts
- Shelf 4
  - Division Finger Charts
  - Test Tube Division (Racks & Tubes)
  - Bead Frames