Let's Count On Math™ Number Line System - Kindergarten & Grade 1 Kit

Kit Contents:

Number line pieces:	0 to 10 (1)		11 to 20 (1)	21-30 (1)	
Number strips:	"1" (20)	"2" (16)	"3" (12)	"4" (10)	"5" (10)
	"6" (5)	"7" (5)	"8" (5)	"9" (5)	"10" (5)

Purpose:

To help students develop a deeper understanding of numbers and operations by physically representing and manipulating quantities. The number line system enables students to see patterns, build mathematical relationships, and develop flexible counting strategies that support addition, subtraction, multiplication, division, and later mathematical concepts.

Thinking - encourage students to ask:

1) What are we counting? (Ones? Repeated numbers?)
2) How are we counting? (Adding? Subtracting? Pattern? To make equivalents?)

Using the Number Line System:

1) At carpet time, other whole class, or group teaching time: position the parts of the number line you wish to use on the board at an appropriate height. The teacher or students place number tiles below the number line at the dots to demonstrate various math operations.
2) Place number strips below and above the number line to demonstrate that there are multiple ways to arrive at the same value.
3) Sums to a number. Place a number strip on the board and ask students to use other pieces to make that value. Depending on your objectives, limit them to using only two pieces, or allow other combinations and order.
4) Use as a station during math centres time.
   A. Place number line strips on the board and have them explore quantities on the number line.
   B. Have multiple 5s (or other number) on the board and have several students explore equivalent combinations to 5.

Free 0-100 number line to print and post in your classroom. See QR code on flip side

Find the Counting. Find the Meaning.

Sample Learning Activities:

1) Counting by ones - place multiple “1” tiles on the number line to demonstrate one-to-one correspondence and counting on the number line.
2) Comparing quantities: Place two number strips atop one another - practice using bigger/larger, smaller, equal, more, fewer, etc. language.
3) Counting groups - use the number strips to demonstrate addition (and subtraction)
4) Skip counting - place multiple tiles of the same number on the number line. Use the boundary markers at the ends of each number strip as visual markers for reciting the multiples.
5) Demonstrate multiplication (without mentioning multiplication) - after placing strips for skip counting, write 1, 2, 3, 4, etc. below the number strips. Now recite one 2 is 2, two 2s is 4, three 2s is 6, etc. Or ask, “How much are three 2s worth?” for example.
6) Pattern counting, build repeating patterns like 2, 3, 2, 3, 2, 3, etc., below the number line. Place 5 strips above (or other combos and numbers) and ask students what they notice.
7) Demonstrate division (without mentioning division) by asking how many times you can remove 3 from 12? (After you have placed four “3”s onto the number line to arrive at 12).
8) Part-Part-Whole: Give them two strips and ask for the whole (total)
9) Model simple “unknown” questions, e.g., A number plus 5 makes 12. What is the number? (Start at 12 and place a 5 tile - see that seven is remaining or ask students to find a strip to fill the space.)
10) Visually demonstrate the commutative principle for addition and multiplication:
    a. During a demonstration of ways to make 5, have students place 1+4 and 2+3 on the board, ask if there are other ways to make 5 using only 2 strips? 4+1 and 3+2. Demonstrate with other part-part(-part)-whole combinations
    b. If some students are already multiplying, demonstrate 2x3 by placing two “3”s on the number line. Then ask what would represent 3x2, place three “2”s below. They both equal 6 but they are not the same, i.e., they are physically different. (Very much like making change: One $10 bill = 5 Twoonies = two $5 bills = 10 Loonies)
11) Use the number strips to demonstrate that even numbers are symmetrical (split into two equal/even halves) and that odd numbers cannot be symmetrically split using only whole numbers.
12) Demonstrate that 2n+1 (where n is any of the number strips) will always make an odd number.

Website: www.LetsCountOnMath.com	**YouTube: @LetsCountOnMath**
Lesson ideas, classroom resources, printable materials, and product information.	Short demonstrations, teaching tips, and classroom activities covering many K-12 learning outcomes.

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