Developing Our MathMINDs | Week 2

Math Teacher 101: A Glossary of Mathematical Terms

TERM	WHAT IT MEANS	VISUAL EXAMPLE
Modeling	Visually representing a situation; most simply, draw a picture!	7
Array	A way to organize objects into a grid.	••••
Area Model	A rectangular diagram showing area (length x width); A type of array (!) helpful with modeling scenarios with larger numbers.	10 10 5 10 7
Number Line	Good for showing distance between 2 numbers, skip counting, and showing addition/subtraction problems in a meaningful way.	+10 +10 +5
Manipulatives	Physical objects to help you model and count. They just really need to be uniform with each other. You can make your own or find some around your house - pasta, dry beans, pennies, LEGOs, paper clips, etc. No need to buy anything!	366
Unit Tiles	Manipulatives specifically helpful with area problems or fractions where the size or area is being counted or measured. You caneasily make your own from paper.	
Mental Math	Doing basic math, estimation, and meaning-making of numbers in your head (NOT complicated calculations or algorithms).	68 x 8 = ? ~70 x ~10 ≈ 700
Fact Fluency	Being able to recall basic math facts in your head (e.g. sums of 10, multiplication tables).	4 x 8 7 x 3 6 x 2 9 x 12

Ten Frames	A 2 x 5 array to help build numbers less than 10 or sums of 10.	
Number Sense	An understanding of what numbers mean and how operations affect them.	2A 2 2 2 0.05
Place Value	The position of a digit determines its value (e.g. 400 vs. 40 vs. 4).	100 10 1 1/10
Friendly Numbers or Benchmark Numbers	Helpful numeric reference points, easier to remember and work with (like 10s or 100s).	438
Regrouping	You may know this as "carrying" in addition or "borrowing" in subtraction. It's the process of breaking up numbers to make it easier for us to add and subtract.	$ \begin{array}{c} 674 \rightarrow 60 + 14 \\ -59 \rightarrow -50 + 9 \\ \hline 10 + 5 \\ 15 \end{array} $
Hundreds Chart	A 10 x 10 table listing the numbers 1 - 100; good for skip counting, recognizing patterns in the numbers; can also be used to help with addition/subtraction problems.	1 2 3 4 5 6 7 8 9 10 11 17 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 3 23 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 89 79 90 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
Part-Part-Whole	A concept to help students generalize the idea that numbers can be decomposed into their parts. It also helps students make the transition and see the relationship between addition (part + part = whole) and subtraction (whole - part = part).	Whole Part Part
Tables	Two-column charts can help organize numbers to recognize patterns or trends.	× y -3 12 -1 7 1 2 3 -3
Graphs	Lines made of points on a coordinate grid; can be built from tables and good for representing patterns, trends, and data.	x



