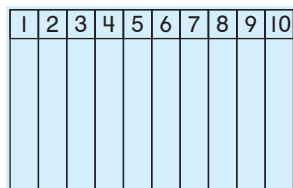
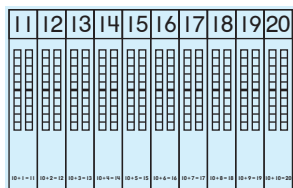


Teacher Glossary

1–20 Board

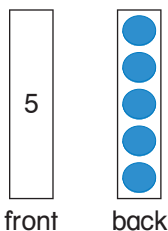


1–20 Board (front)

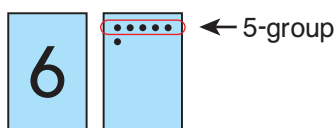


1–20 Board (back)

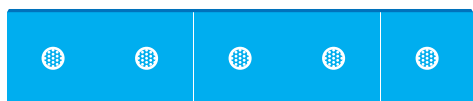
5-Counter Strip A double-sided strip of paper or cardboard displaying the number 5 on one side and 5 counters on the other side.



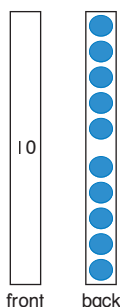
5-group A building block to help children understand 6 through 10 ($6 = 5 + 1$, $7 = 5 + 2$, $8 = 5 + 3$, and so on).



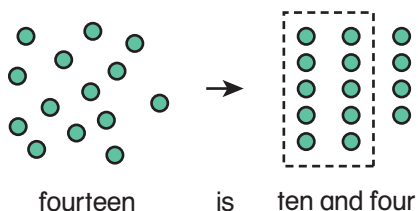
5-Square Tiles A strip of five square-inch tiles. Children use the 5-Square Tiles to help them visualize 5 in numbers 6 through 10.



10-Counter Strip A double-sided strip of paper or cardboard displaying the number 10 on one side and 10 counters on the other side.



10-group A building block to help children visualize teen numbers.



10-stick A 10-group of centimeter cubes from the set of Base Ten Blocks.

120 Poster A visual aid that displays numbers 1–120 arranged vertically in columns of ten.

1	11	21	31	41	51	61	71	81	91	101	111
2	12	22	32	42	52	62	72	82	92	102	112
3	13	23	33	43	53	63	73	83	93	103	113
4	14	24	34	44	54	64	74	84	94	104	114
5	15	25	35	45	55	65	75	85	95	105	115
6	16	26	36	46	56	66	76	86	96	106	116
7	17	27	37	47	57	67	77	87	97	107	117
8	18	28	38	48	58	68	78	88	98	108	118
9	19	29	39	49	59	69	79	89	99	109	119
10	20	30	40	50	60	70	80	90	100	110	120

+/- Tiles Tiles that display the addition and subtraction symbols.



=/≠ Tiles Tiles that display the “is equal to” and “is not equal to” symbols.



add Combine partners to find the total.

addition sign (+) The symbol used to show the operation of addition.

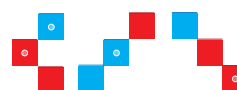
arrangement A way to display objects to represent numbers. A number can be arranged in different ways and look different, but it is still that number.



3 in a row



3 in a tower,
in a slant, tilted



touching at a corner



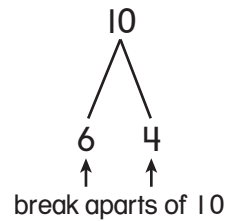
touching on a side

Arrangements of 3 Objects

attribute A characteristic or feature of an object or person.

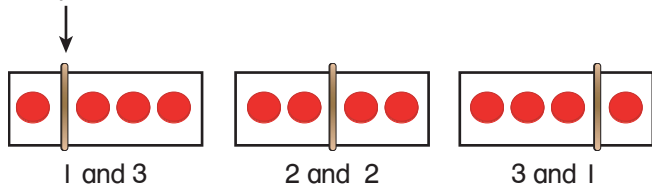
B

break apart (noun or verb)
You can break apart (verb)
a larger number to get two
smaller amounts called
break-aparts (noun), also
called partners.



Break-Apart Stick A simple stick (such as a coffee stirrer) children can use to help break apart numbers. Children lay out a certain number of counters and then use the Break-Apart Stick to separate the counters into two groups.

Break-Apart Stick



C

capacity A measure describing the maximum amount a container can hold.

category A classification group an object belongs to based on particular similar characteristics; almonds, walnuts, and pecans would all be members of the *nut* category.

centimeter cubes The unit (ones) cubes from a set of Base Ten Blocks.

circle A two-dimensional shape with all points the same distance from a fixed point called the center.

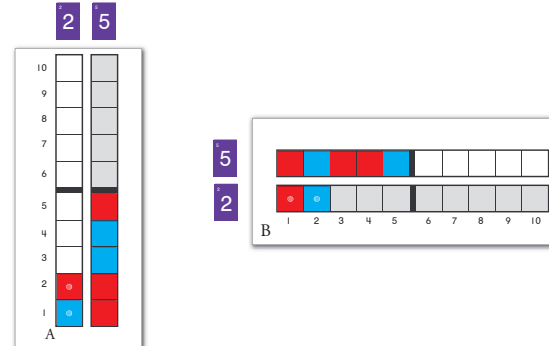


classify Assign to categories based on one or more attributes.

combine Put together; form one group from two or more groups.

compare To examine amounts or numbers to decide if one amount or number is greater than another, less than another, or if the amounts or numbers are equal.

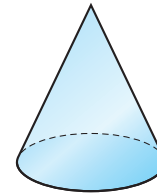
Comparing Mat A chart displaying two rows (or columns if used vertically) of ten square-inch boxes. Children use the Comparing Mat to represent and compare numbers.



compose Put together.

conceptual subitizing Recognizing that a collection of objects is composed of two subcollections.

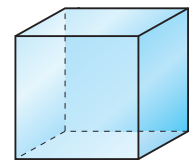
cone A three-dimensional shape with a curved surface that comes to a point.



corners Points where line segments meet.

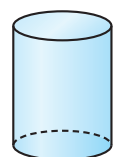
Counting Mat A space children use to contain their work. The Counting Mat can be anything from a plain piece of paper (11" by 17" is a good size to use) to a cookie sheet. The white plastic trays in the *Math Expressions* Materials Kit are intended to be used as Counting Mats.

cube A three-dimensional shape that has six congruent square faces.



curved A segment that is not straight.

cylinder A three-dimensional shape with two circular congruent bases.



D

decade numbers Numbers that are multiples of 10 (10, 20, 30, 40, 50, 60, 70, 80, 90).

decompose Take apart.

difference The result of subtraction. In the subtraction equation $5 - 2 = 3$, 3 is the difference.

digit Any one of these symbols: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

doubles Two of the same addend, or partner. In the equation $5 + 5 = 10$, the two fives are doubles.

E

equal Having the same value as another quantity or expression.

equal sign A symbol that shows two quantities or expressions have the same value.

equation A mathematical sentence that uses an equal sign to show that two expressions, or values, are equal.

$$3 + 1 = 4 \qquad 6 = 8 - 2 \qquad 10 + 4 = 14$$

expression A number or any combination of numbers, operation signs, and grouping symbols.

$$3 + 3 \qquad 8 - 5$$

F

face A flat surface of a three-dimensional shape.

fewer *Fewer* is used to compare two quantities that can be counted. *There are fewer red books than blue books.* *Less* is used to compare two quantities that can be measured. *There is less water than juice.*

flat A way to describe a two-dimensional shape.

G

Game Cards Cards displaying the numerals 0–10. These are on TRB M21.



Giant Number Cards A larger version of the Number Tiles for classroom use. The Giant Number Cards include decade numbers 20–90 as well as numbers 1–10.



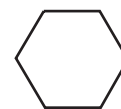
greater A word used in comparisons to show a quantity or a number is larger than another. *Greater than* is used when comparing numbers on their own, for example 8 is greater than 6.

H

heavier A word used in comparing weight to show that one item has a greater weight than another.

height The measure of how tall something is.

hexagon A two-dimensional shape with six sides.



horizontal Parallel to the horizon; going straight across.

horizontal mat A comparing mat that is horizontal.

K

known partner

$$\begin{array}{ccccc}
 6 + \square = 8 & & 8 - 6 = \square \\
 \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\
 \text{known} & \text{unknown} & \text{total} & \text{total} & \text{known} & \text{unknown} \\
 \text{partner} & \text{partner} & & & \text{partner} & \text{partner}
 \end{array}$$

L

length The measure of how long something is.

less A word used to show a quantity is smaller than another. *Less* is used to compare quantities that cannot be counted individually: less milk, less traffic. *Less than* is used when comparing numbers on their own, for example 6 is less than 8.

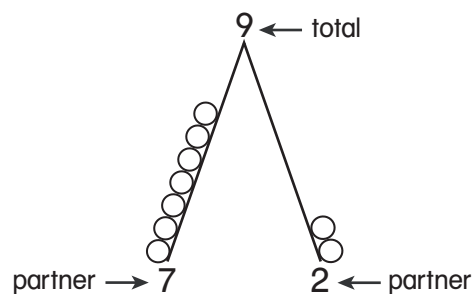
lighter A word used in comparing weight to show that one item has less weight than another.

longer A word used in comparing length to show that one item has a greater length than another.

M

matching A strategy of pairing objects from different groups to determine which group has more or if the groups are equal.

Math Mountain A visual representation of the partners and total of a number. The total appears at the top, and the two partners that are added to produce the total are below to the left and right.



minus sign (–) The symbol used to show the operation of subtraction.

more An amount or quantity greater than another.

N

not equal Not having the same value as another quantity or expression.

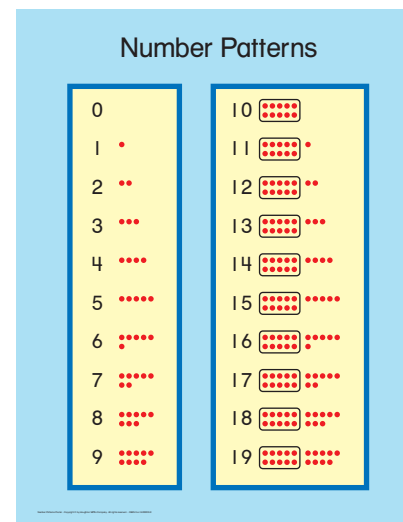
not equal sign (\neq) The symbol that shows two quantities or expressions do not have the same value.

number The word used to describe value (cardinal number: 1, 2, 3). Note: Mathematically, the words *number* and *numeral* are not interchangeable. *Numeral* is the word for the symbol (1, 2, 3, 4) that represents a number. However, at the kindergarten level, the mathematical distinction between the words is not made and the word *number* is also used to refer to numerals.

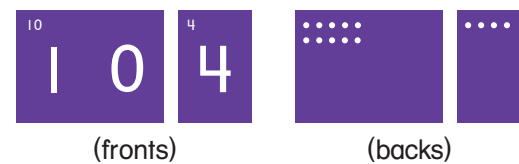
Number Parade A large connected sequence of numbers from 1 to 10 that is displayed permanently in the classroom. Above each number is a 5-structured grouping of dots designed to help children form mental pictures of quantity.



Number Pattern Poster A visual aid that displays the numerals 1–19 and the number of dots to represent each numeral. The numerals 6–9 are shown using 5-groups and the numerals 10–19 are shown using 10-groups.



Number Tiles A set of tiles for child use that displays the numbers 1 through 10 with a numeral on one side and the corresponding number of dots on the other side.



numeral A symbol used to represent a number. 7 is the numeral for seven.

O

ones Individual units that make up a quantity. 12 is 10 ones and 2 more ones.

order (verb) Arrange numbers according to value, from least to greatest or from greatest to least.

P

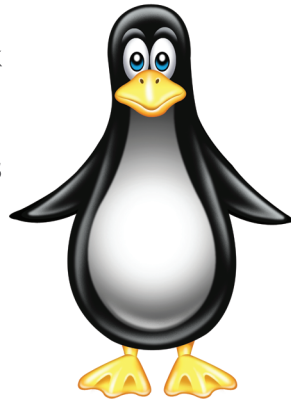
pair A group of two, such as a pair of shoes; also a matching strategy when comparing the number of objects in two groups

partners A pair of numbers in an equation or expression. When 10 is broken apart into the equation $10 = 3 + 7$, 3 and 7 are partners.

perceptual subitizing Visualizing quantities without counting individual units.

plus sign (+) Symbol used to show the operation of addition.

Puzzled Penguin A character shown on Student Activity Book pages and as a puppet; used to introduce critical thinking activities. The Puzzled Penguin's work contains errors that the children must identify and correct.



R

rectangle A quadrilateral with four right angles.



S

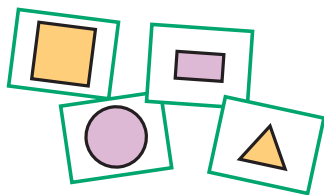
shorter A word used to compare length or height to show that one item has a lesser length or height than another.

side One of the line segments that make up a shape.

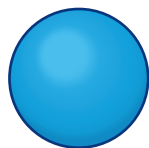
solid A way to describe a three-dimensional shape.

sort To include items in particular groups based on attributes.

Sorting Cards Shape and picture cards used to practice sorting by various attributes. These cards are located in the Student Activity Book.



sphere A three-dimensional figure that is shaped like a round ball.



square A quadrilateral with four equal sides and four right angles.



Square-Inch Tiles Tiles that measure one inch on each side. The tiles are blank on one side and have one dot on the other side. Children use the Square-Inch Tiles to compare numbers and show arrangements and partners of a number.



story problem A math problem using a narrative, including topics from daily life and the math that is being studied.

subitize Perceive the number of items in a group or the total in two groups at a glance without counting.

subtraction sign (-) The symbol used to show the operation of subtraction.

Switch the Partners To change the order of the partners in an addition equation. Used to demonstrate the Commutative Property of Addition.

$$\begin{array}{c} 6 + 4 = 10 \\ \uparrow \quad \uparrow \\ \text{partners} \end{array}$$

$$\begin{array}{c} 4 + 6 = 10 \\ \uparrow \quad \uparrow \\ \text{partners} \end{array}$$

T

taller A word used to compare height to show that one item has a greater height than another.

teen number A number made up of ten ones and some more ones. The numbers 11–19 are referred to as teen numbers.

Teen Equation Cards Cards from the Student Activity Book that display addition equations with sums that are teen numbers. In Set A, the teen total is first and on the left in the equation; in Set B, the teen number is last and on the right in the equation.

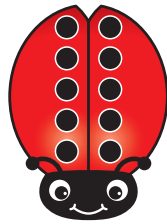
$$13 = 10 + 3$$

$$10 + 7 = 17$$

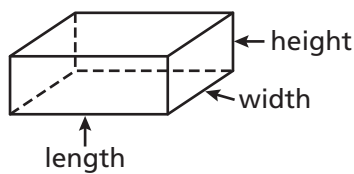
Teen Total Cards Cards from the Student Activity Book that display the numerals 11 through 19 and the corresponding expressions that can be found by adding 10 and any other number from 1 through 9.

11	12	13	14	15	16	17	18	19
10+1	10+2	10+3	10+4	10+5	10+6	10+7	10+8	10+9

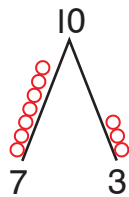
Ten Bug A cutout device used to introduce 10-groups. The teacher “flies” the Ten Bug around the classroom and speaks as the Ten Bug. The Ten Bug encourages children to make groups of ten to help them see the 10 inside teen numbers.



three-dimensional figure A figure with three dimensions: length, width, and height.

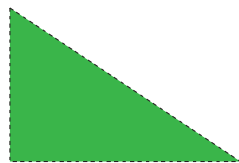


Tiny Tumblers Used with Math Mountains, Tiny Tumblers represent an imaginative way for children to visualize the partners of a number. If the total represented on a Math Mountain is 10, 7 Tiny Tumblers might play on the left side of the mountain and 3 play on the right side to show 7 and 3 as partners of 10.

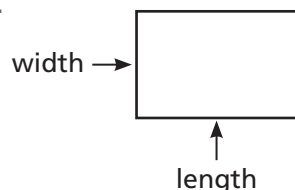


total A number that represents the combined amount of all the items added. A term used in *Math Expressions* to refer to the sum of two partners to avoid the auditory confusion between *some* and *sum*.

triangle A closed two-dimensional figure with three sides.



two-dimensional shape A shape with two dimensions: length and width.



U

unknown partner

$$6 + \square = 8$$

↑ ↑ ↑
 known unknown total
 partner partner

$$8 - 6 = \square$$

↑ ↑ ↑
 total known unknown
 partner partner

V

vertical Straight up and down.

W

weigh Determine how heavy an object is.

weight The measure of how heavy an object is.