More About Math

Number Power

Background for Leaders

This unit focuses on grouping and place value skills for 6-8 year olds. Children will learn to group numbers to count them more easily, skip count to count by multiples, and they will learn place value. These skills will enhance their number sense and build the foundations for adding three digit numbers and multiplying single digit numbers.
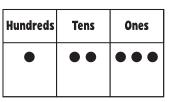
Grouping

In math, **grouping** is the practice of placing items into groups of numerical quantities that make it easier to count. This skill helps children to build **number sense,** a basis for **multiplication,** and increases their ability to reason and reflect on the best way to **solve a problem.** In each game children are challenged to think of the best way to group objects in order to make as few moves as possible or to count the objects. Children can choose to group objects to count by ones, twos, threes, fours, fives and tens. Some of these multiples will be easier such as ones, twos, fives and tens. When counting by groups, children are counting by **multiples** (for example the multiples of 2 are 2, 4, 6, 8, 10, etc.). Children should be familiar with counting by multiples from their experience **skip counting.** By first grade, many children have experience counting by twos and fives as well. If children need help grouping or counting by multiples encourage them to use a **hundreds chart** and move clear bingo counters over the multiples that they are counting.

Hundreds Chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	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	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Place Value

Place value is the concept of knowing the value of each digit depending of its place in the number. For example, the 7 in 476 represents 7 tens or a value of 70, whereas the 7 in 743 represents 7 hundreds or a value of 700. In first grade children learn the place values of ones and tens and learn to count to one hundred. They learn that 10 can be thought of as a bundle of ten ones and that any two-digit number can be broken apart into a number of tens and a number of ones. By second grade children will learn that 10 tens make one hundred and from there they learn to work with three digit numbers. Some children may need concrete models to understand the concept of place value. Use base ten blocks if available, otherwise bundles of craft sticks (10) work for tens, and stacks (100) of them work for hundreds. Another tool that can be used to help children understand the value of numbers is a place value mat.

Hundreds	Tens	Ones
●	● ●	● ● ●

100 + 20 + 3 = 123